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A stylized, high-contrast illustration of an industrial machine, possibly a steam engine or pump, rendered in white and black against a dark background. The machine features a large flywheel on the left, a central piston mechanism, and various pipes and valves. The style is reminiscent of mid-20th-century graphic design.

LABOR AND AUTOMOBILES

BY
ROBERT W. DUNN

INTERNATIONAL PUBLISHERS

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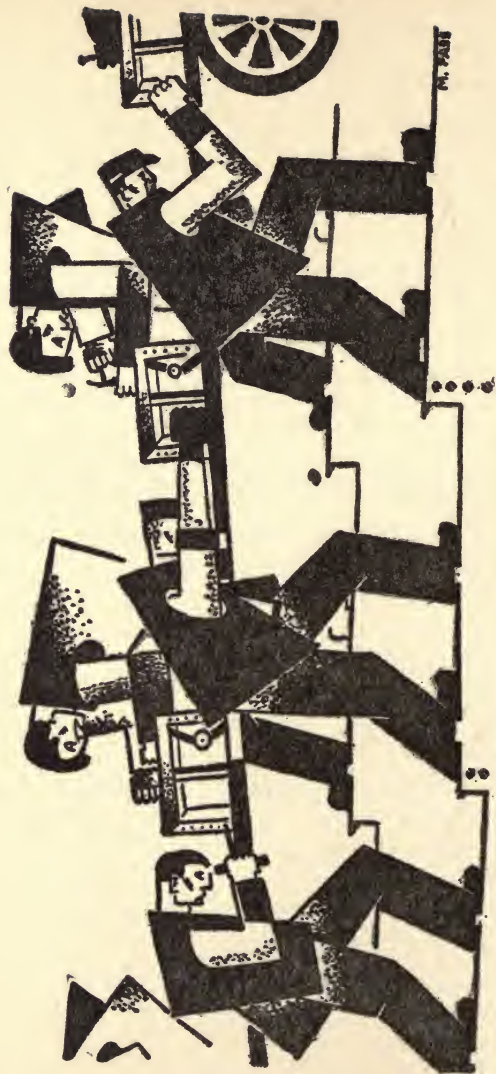
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LABOR AND AUTOMOBILES



"ON THE BELT"

LABOR AND AUTOMOBILES

By

ROBERT W. DUNN

Author of Americanization of Labor, etc.



NEW YORK
INTERNATIONAL
PUBLISHERS

LABOR AND INDUSTRY SERIES

LABOR AND SILK

By Grace Hutchins

LABOR AND AUTOMOBILES

By Robert W. Dunn

LABOR AND COAL

By Anna Rochester

(In preparation)

Other volumes are planned on textiles, steel, lumber, oil, meat-packing, transportation, agriculture, etc.

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This book is composed and printed by union labor.

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PREFACE TO LABOR AND INDUSTRY SERIES

THIS is one volume in a series of industrial studies being prepared by the Labor Research Association, an organization devoted to the gathering and interpretation of economic material for the labor movement.

The aim of this series is to present a picture of the development of the important American industries in relation to the workers employed in them. Other books dealing with American industries have been written from the viewpoint of the employer, the personnel manager and the technical expert. But they have all been interested in perpetuating the present system of exploitation and in piling up more profits for powerful corporations.

The present series gives primary emphasis to the workers and their problems. What does the future hold for the workers in these industries under capitalism? What is the trend of production? What are the wages, hours, and conditions of employment, and how do these compare with those in other industries? What is the extent of unemployment and the job insecurity of the workers? What profits are the companies making? What mergers are being carried out? How are the corporations organized to protect their interests as opposed to those of labor? To what extent are the workers organized—in company unions, in real labor unions? How far has the “welfare” and “enlightened industrial relations” propaganda of the employers succeeded? What are the prospects of effective unionization? These are a few of the questions we shall attempt to answer in this series of labor studies.

Written from an avowedly labor point of view, these books will emphasize not only the specific grievances and hardships of the workers in a given industry. They will also attempt to make clear to the worker-reader the char-

acter of the forces operating in all American industry against the development of strong, militant unions and for the maintenance of the capitalist system.

It is hoped that these studies may serve as useful manuals for those who seek to put an end to the present conditions, and those who take seriously the frequently voiced phrase: Organize the Unorganized.

Besides presenting graphic pictures of the workers' lives and struggles in particular industries, these volumes will also suggest concrete programs of action to meet the offensives of the corporations.

To those workers who desire a brief and simple analysis of the complicated structure of American industry, who wish to know the conditions that must be overcome before workers in America can be organized into a powerful and victorious labor movement, these books are dedicated.

LABOR RESEARCH ASSOCIATION.

AUTHOR'S PREFACE

Two years ago the American Plan Open Shop Conference, an organization of employers devoted to fighting labor unions, held its semi-annual convention in Detroit. An article in a Michigan financial journal reported Henry R. Leland of the Cadillac Motor Car Company as telling this convention, "that Detroit was a prosperous city, that there are many millionaires here, and that most of them have the Open Shop to thank for their success." Another article in a national magazine, about the same time, was entitled, "Cræsus Moves to Detroit and Creates a City with a Soul." Similar articles have referred to "Detroit the Dynamic" and "The Wonder City."

All these characterizations may be correct from the viewpoint of the real estate operator or the company stockholder. But the writers for business magazines do not stop when they have glorified the prosperity of the great automobile corporations. They have glibly referred to "high wages," "shortness of hours of labor," "splendid conditions of work," and the complete absence of the "capital and labor problem" in the motor cities.

This volume challenges such facile descriptions. It refutes the declaration of the president of the Detroit Employers' Association that there are "almost ideal labor conditions in Detroit." The purpose of this book is to get at the facts behind these comfortable phrases, to present the true conditions of workers in automobile plants, and to contrast the wages of the workers in this industry with the millions of dollars in profits made by the corporations. This analysis is of particular importance, since the technical organization of the automobile industry has been held up, the world over, as the model achievement of American capitalism, and since its mass production and "labor management" methods are being copied by European corporations.

The problem of how to unionize the automobile workers is one of the most immediate and pressing ones now before the American labor movement. About 450,000 workers in car, body, parts and accessory plants are outside the ranks of organized labor. Why has no sustained effort been made to arouse these speeded-up workers to fight for organization and better conditions? It is vitally important for us not only to suggest an answer to this question, but to point out how unionization of these hundreds of thousands of unskilled workers may be achieved.

In bringing to light the actual conditions experienced by automobile workers, the writer is indebted to a score of special students who have worked in motor vehicle plants during the last three years, and who have prepared factual reports on the day-to-day conditions of the workers. Three of these men who have been specially helpful in furnishing information are Robert L. Cruden, Cecil Hedrick and William E. Chalmers.

The writer has also been greatly assisted in his investigations by officers and members of the United Automobile, Aircraft and Vehicle Workers' Union of America, as well as rank and file members of several other unions in the automobile centers. Scores of workers in the factories of Detroit, Pontiac and Flint have provided invaluable source material for this study.

A special obligation is owed to Ruth Budinoff who collaborated on a number of chapters, especially those dealing with wages and profits. In the preparation of the manuscript, the writer has, of course, received the active cooperation and critical help of fellow members of the Labor Research Association.

ROBERT W. DUNN.

February, 1929.

CHAPTER I

GROWTH AND IMPORTANCE OF THE INDUSTRY

WE live in what has come to be called The Age of Motors. Each year it becomes increasingly difficult to realize that there was ever a day of the "horse and buggy," when cities were not choked with "cars," when the wide open spaces were not cemented to the earth by a broad network of smooth-surfaced roads, and when the morning papers were not bursting with advertisements extolling in poetry and song the merits of particular models and makes of roadsters, broughams, coupés, landaus and sedans.

It is only 35 years since Haynes, Duryea and Olds contrived their first self-propelled road vehicles, and only 32 years since the Duryea Company, the first automobile company in the United States, produced 12 cars. Real "manufacturing" of automobiles began only in 1900 with the organization of the Olds Motor Works. Olds produced over 425 cars in 1901. To-day, American plants turn out more than 4,000,000 cars a year; about 25,000,000 cars, trucks and buses are in use in this country; and "motor conscious" Americans employ some 317,000 filling stations to pump over ten billion gallons of "gas" every year into their tanks; while tire factories produce 75,000,000 tires a year to cover the wheels of these vehicles.

The consuming power of the motor industry as well as its producing power, is, indeed, stupendous. It has affected profoundly the development of several basic Ameri-

can industries providing it with various raw materials. For example, in 1927 it gobbled up about 82% of the rubber imports for tires, as well as 63% of the total plate glass production. It absorbed about 60% of the upholstery leather, 14% of the finished rolled steel, 22% of the tin, 17% of the lead, 12% of the copper, 29% of the nickel (consumed), and 13% of the hardwood produced in the United States, in addition to great quantities of textiles, paints and other products.

Because of its great consuming power, and the number of industries that look to it as an outlet for their products, the automobile industry is regarded as the very foundation of American industrial "stability". Some economists, like Foster and Catchings, contend that "American prosperity is due chiefly to the automobile." They believe that "no one industry and no combination of industries in any country has grown rapidly enough to furnish the stimulus to general business which the automobile has furnished in the United States." Thus the motor business has come to be considered one of the most reliable barometers of general business.

The growth of this industry has had an incalculable effect upon all that we call "civilization" in America to-day. It has affected, among other things, the solvency of trolley lines, the spread of suburban subdivisions, the growth of insurance companies, the mobility of labor, the world struggle for oil, government appropriations for roads, the reorganization of police forces, the accident death rate of the population, the profits of the cement industry, the technique of waging war, the frequency of real estate booms, the imperialist conquest of rubber-raising backward countries, the growth of consolidated country schools, the sales situation in the clothing industry, the professional standards of country physicians, the marketing radius of farmers, the extension of instalment buying, the prosperity of steel cor-

porations, the rise of new cities, the spread of outdoor advertising, and the development of summer resorts.

A study dealing with the bearings of this industry on the labor employed in it cannot begin to mention even the most significant general social and economic implications of the rise of the motor vehicle from its luxury to its general use stage.

It is possible, however, to set forth a few of the outstanding facts concerning this industry merely as a setting for studying more closely its labor conditions.

The automobile industry was first recorded in the United States Census in 1899 as part of the carriage and wagon industry. But by 1925 the Census of Manufactures shows that, measured by the value of its product, it is the leading industry of the country. In volume and turnover of business it outranks every other. All this within 25 years.

The following figures from this Census give the picture statistically from 1904 to 1925:

Trend of Automobile Industry, 1904-1925¹

Year	No. of Estab- lishments	Average No. of Wage-Earners	Cost of Materials (Thousands)	Value of Product (Thousands)
1904.....	178	12,049	\$11,658	\$26,645
1909.....	743	75,721	107,731	193,823
1914.....	1271	127,092	356,208	632,831
1919.....	2830	343,115	1,940,679	3,080,074
1921.....	2359	212,777	1,321,026	2,079,404
1923.....	2471	404,886	2,711,571	4,176,440
1925.....	1655	426,110	2,970,913	4,721,403

There were about 24,750,000 motor vehicles registered in the United States in 1928—21,630,000 cars and 3,120,000 trucks. We think of the telephone in terms of general use and wide distribution. Yet already in the year 1926 there were more automobiles in American garages than telephones in homes, shops and offices. And since then the number

¹ *Census of Manufactures, 1925, p. 1114.*

of automobiles has increased far more rapidly than the number of telephones.

The number of cars and trucks produced each year and their wholesale value are given for the period 1907 to 1928 in Appendix Table I. It shows that the growth was steady but not spectacular up to 1914. From then on the most rapid strides were made, particularly in the years from 1922 to the present, 1928 being the top year to date, recording an output of approximately 4,600,000 cars.

The great increase in what the workers in the industry produced each hour is also of special interest. The United States Bureau of Labor Statistics finds substantial increases in output per man-hour in all American industry during the period 1914 to 1925. But in no industry studied, except rubber tires, has the increase been greater than in the automobile industry proper, and the tire industry, of course, is closely related to the latter. The largest increases in productivity are registered in those growing industries where technical improvements and automatic machinery have been steadily introduced. Among these the automobile has stood preëminent. In 1925 each worker in the automobile industry was turning out 2.72 times as much work as he did before the war. In other words, *he produced nearly three automobiles for every one produced in 1914, and about twelve for every one he produced in 1900.* The tendency has been accentuated since 1925. Rationalization of the industry leads to increasing exploitation.

According to the National Automobile Chamber of Commerce the automobile industry in 1927 employed directly and indirectly over 4,000,000 persons. But this number (Appendix Table II) includes those working in tire factories, garages, repair shops and automobile finance companies, as well as chauffeurs, parts dealers, highway officials and all the workers in the industries supplying basic raw materials to the industry. The present volume has not

undertaken to deal with the companies or the workers involved in such a grand total. We shall discuss here only those companies classified by the Census as engaged in the manufacture of motor vehicles and motor vehicle bodies and parts, employing in 1925 some 426,000 wage-earners. No other separate industries, with the exception of those classified by the Census as "cotton goods" and "lumber and timber products", reported a larger number of wage-earners.

Types of Companies

Some of the companies covered in this book, such as Ford, General Motors, and Willys-Overland, are really a collection of industries manufacturing nearly all the parts used to construct a car and also assembling the car as a whole.² Others, like Marmon and Moon, buy all their bodies, parts and accessories from other companies, and are engaged solely in assembling the car and selling it. Still others, like Hudson, make their own motors, axles, chassis frames, and the more basic parts, while purchasing bodies, wheels, and many other parts from companies specializing in those lines.

Only 32 companies are listed as passenger car manufacturers by the National Automobile Chamber of Commerce, if we count all General Motors' divisions as one company and do the same with the recent Chrysler-Dodge and Studebaker-Pierce-Arrow combinations.³ These 32 companies manufacture some 44 makes of cars and about 765 models ranging in price from \$385 to \$12,500. (The average retail price of the cars sold in 1928 was \$876.) The N. A. C. of C. also lists 12 companies as taxicab manufacturers and 46 as motor truck manufacturers, some of these,

² In 1928, Ford let contracts with outside suppliers for many parts that he had formerly made in his own plants.

³ National Automobile Chamber of Commerce, *Facts and Figures of the Automobile Industry*, 1928, pp. 90-92. Ford, and a number of smaller concerns, are not included in these figures.

of course, being also makers of passenger cars. Some 28 companies, most of them from the truck group, are listed as motor bus manufacturers. Allowing for this overlapping we find altogether about 70 companies manufacturing finished cars, whether passenger cars, taxicabs, buses or trucks. This does not include a number of smaller truck companies included in the Census figures.⁴

Bodies, Parts and Accessories

With the recent phenomenal increase in the closed type of car (from 30% in 1922 to 85% in 1928) and the increasing emphasis on style, body manufacturing has become one of the most important branches of the industry. Bodies are usually made by separate companies in separate plants. Sometimes, of course, these companies and plants are owned or controlled by the company that puts out the finished car. After the body is finished in the body plant it is transferred to the assembly plant and attached to the chassis on the final assembly line.

The largest of these body companies is the Fisher Body Corp., a division of General Motors. It builds practically all the closed bodies for General Motors as well as for certain other companies. In 1926 it built more than half the bodies produced in the country for cars costing \$500 or over. It has 44 separate plants spread all over the country, usually located near a General Motors assembly plant. One of these at Flint, Michigan, is the largest body manufacturing plant in the world. It has also large hardware plants operated by the Ternstedt Mfg. Co. and glass plants operated by the National Plate Glass Co., both of them subsidiaries of Fisher Body. Its timberlands and sawmills are located in a number of states.

Other typical companies, specializing in the production

⁴ Tractor manufacturing companies are also listed by the Census under another heading.

of bodies on a large scale, are the Briggs Mfg. Co., which operates six plants at Detroit and Cleveland (this company now does much of the Ford body work), the Murray Corp. of America with plants in a number of states, and the Hayes Body Corp. of Grand Rapids.

Certain manufacturers of passenger cars, such as Durant, Nash and Willys-Overland, have the bulk of their bodies made in their own plants or in plants which they control. The Hayes-Hunt Corp., for example, is controlled by Durant Motors, and makes bodies for all cars built by Durant and affiliated companies.

The several hundred motor and accessory manufacturers making all sorts of parts, accessories and equipment sell their products to companies turning out completed vehicles. The Timken-Detroit Axle Co., for example, builds a particular type of gear used in over 100 cars. Then there are roller bearings, spark plugs, shock absorbers, horns, magnetos, automatic windshield wipers, speedometers, electric fixtures, upholstery, hardware and the like, made by over 1200 specialty establishments on orders from the regular car manufacturers.⁵

The wheel business is to a large extent in the hands of a few specialists. The Motor Wheel Corp., for example, produces approximately one-half the total requirements of the industry. The Wire Wheel Corp. of America is another company specializing in a particular field. It claims to supply 70% of the wire wheels required by the industry with the exception of the Ford company.

Company Payrolls

Automobile plants, and bodies and parts manufacturing plants, come in all sizes, but the great majority of the

⁵ Certain companies, such as those making engines, tires, springs, ignition apparatus, batteries, and starting and lighting systems are not included in the Census figures on page 13, and are not strictly within the field of our study.

workers are employed by the large companies operating extensive plants.

In the list of 39 automobile manufacturing companies reporting on accidents to the National Safety Council in 1927 were companies ranging in size from 75 to 47,000 workers while among the 36 automobile parts manufacturing companies the number of workers employed ranged from 40 to 5,000.

No governmental agency is permitted to furnish information concerning the number of workers employed by individual companies or particular plants. It is, therefore, difficult to secure reliable figures to show the reader, even roughly, the numbers employed by certain companies and plants. Some of the figures given below cover both salaried employees and wage-earners; others include only the latter; a few are based on newspaper reports; others are official figures from financial yearbooks. Some include workers in domestic as well as foreign assembly plants; others only employees of the main plant. Despite these drawbacks and lack of uniformity, these figures may help one to gain some notion of the relative number of workers employed by certain well-known firms in various branches of the industry:

<i>Company</i>	<i>No. of Employees</i>
General Motors	209,500 ⁶ (July 1, 1928. Includes all employees of General Motors in Canadian and overseas plants, warehouses and offices, as well as employees in divisions such as Frigidaire, not devoted to automotive products.)
Some of the General Motors companies included in the total figures are the following:	
Fisher Body...	60,000—(40,000 in Detroit plants; 7,000 in Flint)
Chevrolet	40,000—(in 14 plants including 14,000 in Flint)

⁶ The only American corporations with more employees than General Motors are the United States Steel Corp., the Pennsylvania Railroad and the American Telephone and Telegraph Co.

<i>Company</i>	<i>No. of Employees</i>	
Buick	30,000—	(in 70 plants at Flint)
Oakland	12,000—	(in Pontiac plants)
Delco-Remy Corp.	8,500	
Cadillac	8,000	
Olds	6,500	
A. C. Spark Plug	5,000	
Kelsey-Hayes Wheel	3,500	
Ford	170,000	(November, 1928. Including all Ford industries and assembly plants throughout the United States. Including the rest of the world the payroll runs over 186,000.)
Included in the total figures are the following plants:		
Fordson (River Rouge)	78,000	
Highland Park.	38,000	
Lincoln	4,000	
<hr/>		
Total in Detroit plants	120,000 ?	
Chrysler	43,000	(Including Dodge Bros.; 15,000 of these are in Chrysler, the remainder in Dodge.)

A few other companies, in the order of the number they employ, are the following:

<i>Company</i>	<i>No. of Employees</i>	
Willys-Overland	25,000—	(In plants at Toledo, Pontiac & Elmira)
Studebaker	22,000	
Hudson	17,000	
Briggs	16,000—	(At capacity operation)
Packard	13,350	
Nash	12,000—	(Racine, Kenosha & Milwaukee plants)
Durant	10,000	
Stewart-Warner Speedometer...	9,000	
Budd	9,000	
Mack Trucks	8,700	
Reo	7,200	
Seaman Body	6,500—	(Nash-controlled)
Murray	5,500	
Graham-Paige	5,000	

? Ford announced in January, 1929, that he would hire 30,000 new men by March. But many old men were being fired at the same time.

<i>Company</i>	<i>No. of Employees</i>
Continental Motors	5,000—(Chicago and Muskegon)
Hupp	3,000
Motor Wheel	3,000
Timken-Detroit Axle.....	2,600
Pierce-Arrow	2,525
Hayes Body	2,250
Rolls-Royce	1,600—(Springfield plant)
McCord Radiator	1,500
Chandler	1,500
Federal Motor Truck.....	1,200
Peerless	1,115
Stutz	850
Gardner	500
Moon	450
Jordan	450
Republic Motor Truck.....	350

Relative Output of Companies

A few preliminary figures on the relative position of the various leading companies, from the standpoint of output, may enable the reader to evaluate better the data that appear in the following chapters.

The percentage of the total output of cars achieved by Ford in various years is of primary interest. Since 1913 Ford has produced well over 40% of all the cars made in the country, with the exception of 1918 when it was 37%, 1926 when it was 33%, and 1927 when it was only 13% due to the curtailment incident to the introduction of the new model. In that year Ford dropped from first place to eighth. The peak of Ford output was reached in 1921 when the company turned out 60% of all the cars made. There were other years when it reached 46, 48 and 49% of the total.

General Motors is the other company which has shown phenomenal increase in production. Its proportion of the total American output reached 28% in 1926 and 44% in 1927. For the present it holds the lead in production,

having passed Ford in 1927. In the order of importance of factory sales, the various leading makes of cars stood as follows in 1927: Chevrolet, Hudson-Essex, Oakland-Pontiac, Whippet (Willys-Overland), Buick, Chrysler, Dodge, Ford, Studebaker-Erskine, Nash, Oldsmobile, Durant-Star. And in the first eight months of 1928 Chevrolet led again. In fact, the sales of all General Motors units reached 996,042. Ford (with Lincoln) came second during this period with 224,342 and Chrysler-Dodge third with 122,840. Production figures, of course, ran higher than sales. Chevrolet alone had run a million cars off its assembly lines by August 28, 1928.

This shows the relative importance of the companies in terms of production and sales. From the standpoint of their total assets the ranking of the nine largest companies in 1928 was as follows: (1) General Motors (2) Ford (3) Chrysler-Dodge (4) Studebaker-Pierce-Arrow (5) Willys-Overland (6) Hudson (7) Packard (8) Nash and (9) Hupp.⁸

Distribution of Plants

Of the 262 plants making finished motor vehicles in 1927, according to the Department of Commerce, 44 were in Michigan, 34 in Ohio, 25 in Illinois, 22 in California, 20 in New York, 19 in Indiana, 14 each in Pennsylvania and Wisconsin, 8 each in Missouri and New Jersey, 6 in Massachusetts and smaller numbers in 22 other states and the District of Columbia.

These 262 plants include not only the mammoth central plants like those of Ford, Chrysler and General Motors, located chiefly in Michigan, but also the separate assembly plants of the various companies scattered all over the country, many of them employing 1,000 workers or less. Probably all those listed for California are the west coast

⁸ *Automotive Industries*, December 22, 1928, p. 898.

assembly plants of the different corporations. The 262 establishments represent only the 70 manufacturers of passenger and business vehicles and do not include body, parts and accessory manufacturers.

In reality about 75% of all the cars made in the United States come from Michigan, the nerve center of the industry. The relative importance of the various automobile centers of Michigan is shown in an estimate, made by the Michigan Mfrs. Assn. in August, 1928, that the Detroit district, including, of course, Highland Park, Hamtramck and Fordson, produces approximately 11,000 cars a day; Flint about 5,900 (5,000 of which are Chevrolets), Pontiac about 700, and Lansing about 600 a day.

Of the 17 companies in the United States that make an average of more than 30,000 cars a year, seven are in Detroit or its immediate vicinity, and 5 more are within the borders of Michigan. As a result of this great industry, Detroit, where some 50% of the workers in the whole industry are employed, has grown from a small city with 285,000 inhabitants in 1900 to a metropolis of over 1,378,000 to-day. It is the fourth largest city in the country. Flint, a city completely dominated by General Motors, rose from a population of 13,000 in 1900 to 148,000 to-day, while Lansing with 16,000 in 1900 has 80,000 to-day. Other Michigan cities that have sprung from country villages to cities because of this industry are Pontiac with 61,500, and Highland Park and Hamtramck, adjoining Detroit, with a present population of 86,500 and 100,000 respectively.

Nearly all the manufacturers of passenger cars have their plants within a 250-mile radius of Detroit. This includes all those in Michigan cities as well as Nash in Wisconsin, Willys-Overland at Toledo, Studebaker at South Bend, Chandler, Peerless, Jordan, Stearns-Knight and others at Cleveland, and Marmon and Stutz at Indianapolis. The

parts and accessories plants are also concentrated in this district, Cleveland being one of the leading cities in this field.

Canadian Production

Automobile companies from this country have secured such a hold on the Canadian industry that the Canadian production of cars is now usually included in figures dealing with United States production. Canadian output of approximately 200,000 cars a year is, of course, a relatively small item in total annual production figures. Of the 14 makes of cars produced to-day in Canadian plants only one (the Brooks Steamer, in a factory that turns out one a day!) is not produced also in the United States.

According to C. Howard Aikman in his book, *The Automobile Industry of Canada*, "the tendency [in the Canadian industry] in the main has been toward a complete conformity of Canadian models to American standards and the gradual organization of the Canadian companies as subsidiaries of the larger and more enterprising of the firms in the United States."

The following American concerns are manufacturing or assembling cars in Canada and completely dominate the industry: Ford with the largest plant in Canada, Studebaker, Chrysler, General Motors, McCord Radiator, Motor Products, Champion Spark Plug, and Kelsey Wheel, as well as several truck companies. These companies have plants in the border cities across the river from Detroit. There are also the principal Canadian plant of General Motors controlling the city of Oshawa, Willys-Overland, Durant and Dodge plants at Toronto, and two truck plants in Ontario.

Ford is the largest Canadian employer of automotive labor, hiring about 10,000, with General Motors the next larg-

est. Willys-Overland comes third with about 1,000 workers. The other companies each employ less than 1,000 workers.

Percentage of World Output

According to a world census of automobiles made by the U. S. Department of Commerce in 1928, it is estimated that of the grand total of 29,697,500 automobiles reported to have been in use throughout the world on January 1, 1928, nearly 90% are of American (U. S. and Canadian) manufacture. In other words nine out of every ten automobiles used in the world could be labeled "made in North America."

The completed figures for 1927 show that 81.6% of the world's motor vehicle production was in the plants of the United States, 4.3% in Canadian, 5.5% in English, 4.6% in French and 4% in all others.⁹ At the beginning of 1929, about 78% of all the motor vehicles in the world (then estimated at 31,750,000) were operated in the United States.

The fact that the motor industry is so nearly an "all-American" concern does not, of course, lessen the serious political complications which arise out of its growth. The automobile uses about 80% of the gasoline consumed in this country, not to speak of vast quantities of lubricating oils—about 434 million gallons in 1928. It thus has a decisive influence on the world-wide struggle for petroleum which has been more vigorously conducted in recent years, and which is vividly described in Ludwell Denny's book, *We Fight for Oil*.¹⁰

Even more directly related to the industry is the hunt for rubber and the exploitation of "backward" countries which this involves. Liberia is a case in point as are the Philippines. The attempts of American tire companies to grow rubber in various colonies and protectorates under

⁹ U. S. Daily, July 21, 1928.

¹⁰ See also Louis Fischer's *Oil Imperialism*.

American domination, and their efforts to break down the British supremacy in this field, add to the economic friction that leads to armed conflicts.

Other important raw materials which have to be imported, such as copper, nickel and tin, are vital to this industry. The scramble for the sources of such materials intensifies the rivalries between modern imperialist nations. It is clear that the development of this leading American industry, with its various international ramifications, forms a basis for imperialist competition. This, in turn, germinates preparations for war, and finally war itself. Realizing these implications, a study of the industry becomes all the more important for those who work in it, as well as for all workers who fight against the danger of imperialist war.

CHAPTER II

PROFITS

Financial Growth of the Industry

THE extraordinary physical growth of the automobile industry in the past quarter of a century has been accompanied by an equally extraordinary growth in profits. The profits of the early auto manufacturers were phenomenal even for a new industry where returns might be expected to run high because of little competition and the freshness of the market. It should be emphasized first of all that this industry has developed largely through the reinvestment of its own fabulous profits. We shall notice this again and again, in reviewing the history of particular companies.

While not enjoying the huge percentage returns of earlier days the automobile companies are now considered among the very highest money-makers for the American capitalist class. Both in 1926 and 1927 automobiles were the leading profit-making stocks in America with the exception of railroads. Both the rate of return and total profits have been larger for this group in these two years than for any other industrial enterprises.

Profits in the industry in 1927 were more than five times the average profits for iron and steel companies. A report covering eleven motor companies with a total capital investment of \$1,216,794,852 in 1927 showed a net profit of \$341,236,017 before bond requirements, interest and dividends were paid, or profits of over 28 per cent on total capital.

Practically all these corporations have multiplied the

shares held by the original investors through stock split-ups and stock dividends until the profits per share now appear comparatively small. Actually, however, *their profits on the original investment* are running at an annual rate of anywhere from 50 to several thousand per cent.

Exactly how large a factor reinvested profits were in the industry may be seen from figures compiled by the National Automobile Chamber of Commerce. Up to 1910, individuals had invested money in the industry, but until that year, when the first notes of the General Motors Co. were issued, there had been no public offerings of stocks in the money market. From then till 1915 there were sporadic offerings of various firms, but it was not till 1915 that real speculation in motor stocks became active. The amount of capital invested in the industry, not including parts, accessory and body companies, is shown in the following table:

<i>Year</i>	<i>Amount of Capital</i>
1910	\$ 174,000,000
1914	407,000,000
1919	1,015,443,338
1923	1,571,722,400
1924	1,691,050,112
1925	1,888,028,810
1926	2,089,498,325

Why the industry has so small a funded debt is shown in Prof. Lawrence H. Seltzer's analysis.¹ Tremendous profits have permitted the companies to "plow back" large amounts into the business. Almost 80% of the present total capital of seven of the largest auto companies was derived from reinvested profits.

In most years prior to 1917 the leading automobile companies made 30% or over on their net worth, falling under 20% in only one bad year (1911) according to computations made by Prof. Ralph C. Epstein in *The Automobile*

¹ *Financial History of the American Automobile Industry*, Chapter II.

*Industry.*² In three of these years profits amounted to 50% or more upon capital, and in all these years averaged about 40%. Never except in 1921 have net profits fallen below 15%. Even in 1921—the year of great depression—there was no net loss for the industry as a whole. From 1917 on, profits have averaged about 20%. Profits in 1926 were about 19.8%. The percentages of net profits to net worth for nine large manufacturers over a period of years are shown in Appendix Table III.

Not only were profits high in the days when the industry was young, but even after 25 years the percentage of profits remains unusually high. We have already compared the rate of return of automobile companies with those of the iron and steel industry. Another compilation including a larger number, and different companies from those used in the previous comparison, shows that the net profit in 1927 of the 13 leading automobile manufacturers totaled \$320,-151,722 compared with their aggregate net worth of \$1,285,374,675, a profit of 24.9%. If we exclude the Peerless and Pierce-Arrow companies, both of which experienced losses in that year, the average of those showing a profit would come to 26.3%. While the rate of return for this group is not quite as high as for the smaller group, it is still very much higher than that received in other industries. And it was still higher in 1928 when profits of 13 companies, for the first 9 months, were greater than for the whole year 1927.

One striking way of illustrating the large volume of profits of motor concerns is to show what an investment of a small amount in certain companies would return to the investor. It is estimated, for example, that \$10,000 invested in the common stock of Reo at the time of its organization in 1904,

² *The Automobile Industry—Its Economic and Commercial Development.* This book and the volume by Prof. Seltzer should be consulted by students specially interested in the financial development of the industry.

with no further purchase of stock or contribution of funds, would have left the investor with an equity of approximately \$2,000,000 at the end of 1926.

Spectacular changes in the value of motor shares have taken place in the stock market in the past three years. The announcement that Dillon, Read & Co. had paid \$146,000,000 for the Dodge Co. had a great deal to do with the rapid upward swing in motor stocks. When this transaction was announced other motor company executives were quick to take up the cry that the stock market was placing a more conservative valuation on their properties than the Dillon firm had placed on Dodge. The prosperity in the industry was, of course, a factor in raising the price of stocks from this time on, but the advance in stock market valuations has been much greater than the increased "earning power" of the companies alone would justify. For if the prices of motor stocks had the same relation to profits in 1928 as in 1925, their prices would be about one-half their current levels. The advance in prices during days of wild speculation on the Stock Exchange in 1928 has added millions to the value of these securities which are now selling for many times their net tangible asset values. For example, at their high prices in June, 1928, the securities of five companies³ had an aggregate market value of \$4,666,974,557 while their book value at the end of 1927 was only \$980,870,661. There was thus an excess of market value over the book value of the real investment aggregating \$3,686,103,896, or 370%! And at the end of 1928 motor shares on the stock market were selling at about 14 times their annual earnings.

A brief summary of the financial history of important companies will help us to see more clearly the prodigious profits that the owning class has made in this industry.

³ General Motors, Studebaker, Packard, Chrysler and Hudson. A *Wall Street Journal* computation condensed by Leland Olds. Federated Press (Chicago Bureau), June 27, 1928.

Ford Profits

The story of the Ford Motor Co. and its founder has been related in countless books and articles. The most recent accounts appear in the works of Epstein and Seltzer to which we have referred. It is possible here to give but the barest summary of this Ford achievement in the creation of cars and the accumulation of millions.

In 1903 Henry Ford organized the company that was to make him famous and a billionaire. Twelve men comprised the company, Ford and his former partner Malcomson holding 255 shares each of the initial stock out of a thousand shares valued at \$100 each. Altogether the stockholders were able to raise but \$28,000. This was the sole financial basis of the present Ford fortune. No other cash was ever put into the company. The "miracle" of a business enterprise valued at approximately one billion dollars from an investment of \$28,000 was accomplished without any more financial support.

An agreement in the early history of the company stipulated that any shareholder wishing to dispose of his stock should first offer it to the other stockholders before offering it publicly. Ford gradually acquired the stock of the others. He first bought Malcomson's shares for \$200,000, all of this money coming out of Ford's profits from the flourishing enterprise. Then he bought the holdings of some of the smaller stockholders, and finally, in 1919, through his son Edsel, he bought the last remaining shares of stock from James Couzens and others of the original holders. Before he got out Couzens had received more than \$5,000,000 in dividends, and Horace Rackham, another original stockholder who did not sell out till 1919, drew over \$2,000,000 in dividends. Another shareholder named Anderson had drawn over \$2,000,000 in dividends during the period in which he held his stock. And the Dodge brothers also laid

the basis for their fortune in their investment in 100 shares. The following sums were realized by original investors when they sold their stock to Ford:

<i>Stockholder</i>	<i>Original No. of Shares</i>	<i>Original Investment in 1903</i>	<i>Sum Received in 1919</i>
James Gray (heirs).....	105	\$10,500	\$26,250,000
Horace E. Dodge.....	50	5,000	12,500,000
John F. Dodge	50	5,000	12,500,000
John W. Anderson	50	5,000	12,500,000
Horace H. Rackham	50	5,000	12,500,000
James Couzens	25	2,500	} 29,307,920
(Total investment by Couzens ⁴	10,000)		

These people all became millionaires through their association with Ford. Moreover, the money they received in 1919 does not represent their full return; they had all, as we have indicated, drawn large dividends from 1903 to 1919. But the history of these minor millionaire shareholders is only incidental to the development of the Ford fortune. Since 1919 his wealth has increased like magic and the total returns from his far-flung industries have gone entirely into the coffers of the Ford family.

After Ford secured all the stock the company continued to expand rapidly until in 1921 it produced 60% of all the passenger cars. Business increased in 1923 and production reached a peak of over 2,000,000 cars. Through 1925 Ford sales averaged about 50% of the total cars sold in the domestic market. In developing his great business Ford had gone far afield in search of basic sources of raw material and in the utilization of waste products. The "vertical" integration of his industries is well known and has been fully described in booklets issued by the company and in dozens of books and articles.⁵

⁴ Couzens acquired 110 more shares a few years after 1903, bringing his total investment to \$10,000.

⁵ *The Ford Industries*, Ford Motor Co., 1927, and the various books about Ford listed in the bibliography.

As we have noted, the Ford industries have been built up solely by the reinvestment of profits amounting to about \$750,000,000. In addition at least \$175,000,000 has been paid out in cash dividends to the stockholders.

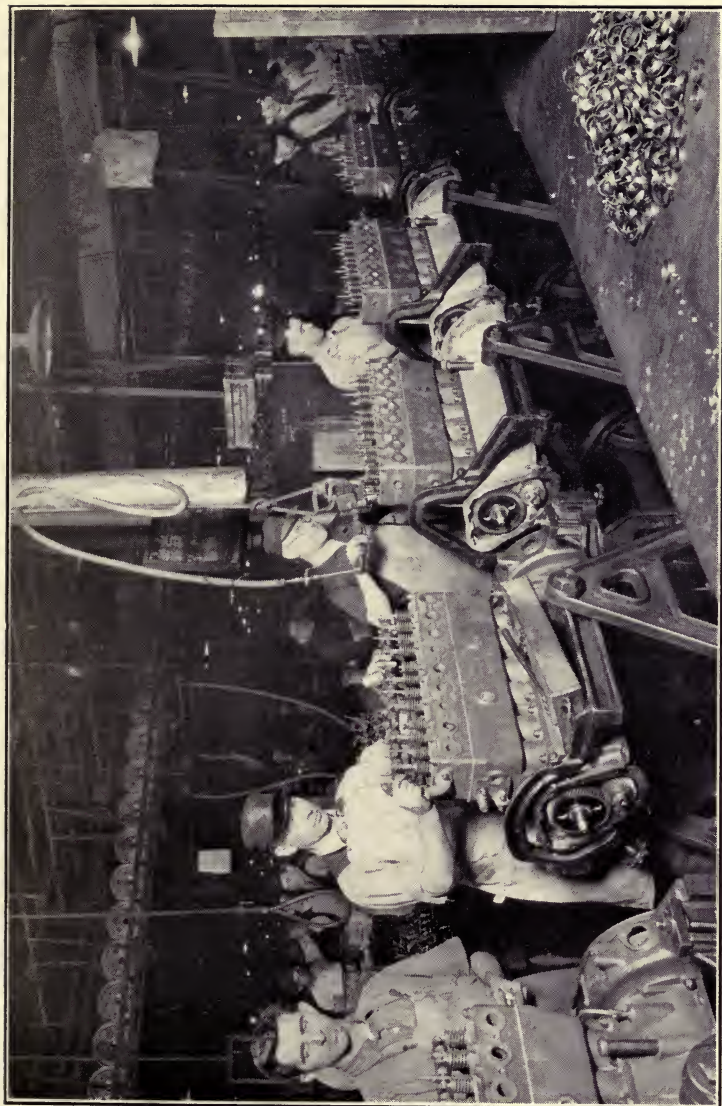
Late in 1927 Ford decided to put a new model on the market and stopped production on the famous Model T of which 15,000,000 had been produced. Plants were shut down for almost nine months while the machinery for making the new model was designed and set up, the cost of this being estimated at about \$100,000,000. But despite the decline in surplus in 1927, the balance sheet shows the company in its usual very strong financial position. Indeed, the total surplus at the end of 1927 was still greater than that of any year prior to 1926, and was equal to \$3,792 a share on the 172,645 shares of the company. The company's accumulated profits were thus only slightly affected by the interruption of production in 1927.

From the reported surpluses it is possible to make an estimate of the profits the company has made year by year.

<i>Year Ended</i> <i>Dec. 31</i>	<i>Total Accumulated</i> <i>Surplus</i>	<i>Year's Surplus</i>
1923	\$442,041,081	\$ 82,263,483
1924	542,476,497	100,435,416
1925	622,366,893	79,890,396
1926	697,637,788	75,270,895
1927	654,851,061	Loss—42,786,727

The average annual profits for the four years preceding 1927 thus averaged nearly twice the amount of the loss sustained in 1927.

Ford has coined profits not only out of cars, trucks and tractors. He makes some 13 million dollars a year from other products. Among these are fertilizer, charcoal briquets, Portland cement and some 40 other by-products of his vertically arranged industries. For in order to get control of sources of material for his car he has bought



BUICK MOTOR ASSEMBLY

timber lands, coal and iron mines, limestone quarries, ships and railroads, and even rubber plantations in Brazil. And some of his profits—certainly an increasing share in the future—come from the building and operation of airplanes.

On its 25th anniversary we find the growth of this company to have been phenomenal. From \$100,000 its authorized capital stock has been increased to \$100,000,000; from a factory of 28 acres of floor space it has now extended until it covers more than 1,500 acres. From 311 employees its payroll has increased till it has at times passed 200,000. Its branches and assembly plants have grown to 36 in the United States and others in South America, Cuba, Mexico, Europe, Egypt and the Orient. From an annual production of 1,708 cars the company has enlarged its facilities till it has produced over 9,000 cars in a single day and more than 2,000,000 cars in one year.

And \$10,000 invested in this company in 1903, with no further cash investment whatever, would, as Prof. Epstein states, "by the end of 1926, have amounted to the unbelievable equity of \$275,000,000 (two hundred and seventy-five millions of dollars)."

General Motors—Money Maker

Next to the development of the Ford company, controlled practically by one man, the rise of General Motors is the outstanding event not only of the motor industry but of all industry. Originally organized in 1908 with a total capitalization of \$12,500,000, this company's securities are valued to-day at over \$2,000,000,000. It is now the leading profit-making organization in the world, outstripping even the United States Steel Corp., which for many years topped the list of billion-dollar corporations. The profits of General Motors now come primarily from manufacturing cars, parts and accessories; but some of them are also due to its

Frigidaire Corp. (electric refrigerators) and Delco-Light Co. (farm lighting equipment) divisions.

Unlike the Ford company, General Motors was not among the infant pioneers in the industry which later grew into giants. Its development was more impersonal. With its organization the financier came to play a more important part in the business. The banker, as we shall see, began to have a finger in the automobile pie.

Shortly after the General Motors Company of New Jersey, which was its first title, was organized in 1908 it acquired several of the oldest companies existing at the time. It swallowed up the Buick company and later the Olds, the Oakland and the Cadillac. By the end of 1909 the consolidation included 13 companies and by the end of 1910 some 23. The period from 1910 was spent largely in reorganization and the weeding out of those subsidiaries that proved unprofitable.

In 1916 the present form of organization took shape, as a result of much stock juggling begun in 1915. After a successful Stock Exchange battle, Durant and the powerful Du Pont powder and chemical interests, which had acquired some stock in the corporation, won back control of the company from the other bankers. A new organization was formed in October, 1916, and Durant and his group gained control of it by obtaining a large majority of the shares in exchange for the Chevrolet company's stock, while at the same time retaining control of Chevrolet.⁶

The outstanding stock of Chevrolet was bought in by General Motors in 1918, at a great profit to Durant; and Chevrolet became the largest producing unit in General Motors, second only to Ford in productive capacity. At the same time General Motors acquired many parts and accessory companies and later the Fisher Body Corp.

⁶ For the full story of all these transactions see Seltzer, *op. cit.*, chap. IV.

The Du Pont interests bought out the Durant holdings in 1920 and henceforth dominated the company together with several prominent Wall Street men, including partners of J. P. Morgan & Co. The Du Pont company alone, in 1927, owned 22.94% of the stock, and controlled the company.

During the period 1912 to 1920, \$128,070,238 of the profits made had been reinvested in the corporation, and cash from the sale of securities amounted to \$130,826,635, making a total addition to cash capital of \$258,896,873. But this was only the preparatory period before the real rise in power following the 1920 reorganization.

The tremendous financial power of the Du Ponts carried General Motors over the post-war depression period, after which came a period of increased efficiency, speed-up for the workers, and rising productivity, as new designs were introduced and prices were fixed to meet the growing competition of other companies.

While the company's development through 1922 was rapid the real strides have been made in the following six-year period. Despite big returns to stockholders there have been enormous surpluses to turn back each year to the business, so that in the six-year period from 1922 to 1928 only \$36,490,637 or 9.3% of the total additional capital employed in the business has been drawn from outside sources; the remainder represents reinvestment of profits. In fact, profits amounting to \$309,793,309 have been reinvested in the business during the past six years. But before this was done the company paid out \$405,665,914 in cash dividends to shareholders from the net profits of these years. The Appendix Tables IV and V show the growth of the company during this period.

"Capital Readjustment"

The details of the changes in the capital structure of this J. P. Morgan giant and the various devices through which

excess profits were capitalized make interesting reading, but cannot be described here at length. The *Journal of Accountancy*, speaking editorially of the contemplated change in capital structure in 1927, said:

On the surface of the proposed rearrangement there is nothing extraordinary. A company which in sum of profits exceeds all others in this country, a company which has always been singularly responsive to demand for capital readjustment, has done what scores of other companies great and small have done. It has seen the wisdom of a division of ownership into units which are within the reach of the ordinary investor and perhaps it has *recognized the political expediency of a plan by which distribution of profits would not appear to the general and unthinking public as unduly large and therefore unholy.* (Italics mine.—R. W. D.)

The situation this editorial referred to was as follows: at the end of 1927, after the payment of all dividends on preferred and debenture stocks, the company had a balance of \$225,995,496, or about \$13 a share to pay out to holders of 17,400,000 shares of common stock, as compared with \$10.90 a share paid in 1926. While this is an exceedingly high rate of profit it does not look so "unduly large and therefore unholy." The point to be remembered is that the company did not start with anywhere near 17,400,000 shares of stock on which this rate of return was computed. The stock had been enlarged again and again throughout the course of its history. But the additions were not usually made through the sale of new stock to outsiders. They came through redistributions by means of stock dividends and exchanges to the old holders.

These "readjustments of the capital structure" are a maze through which the reader of this book need not be led. The bare outlines, however, may be sketched. Starting with \$7,000,000 of common stock and \$5,500,000 of preferred the company, early in its history, began to hand out stock divi-

dends. In 1910 it declared a stock dividend of 150% and in 1916, with the formation of the new corporation, 5 shares of the new common stock were issued for each share of common held in the original company. There were several increases in the stock between 1916 and 1920; then, following another 2.5% stock dividend, came another "readjustment." Ten shares of new no-par stock were given for each share of \$100-par held at the time. Again in 1924 stockholders received one share of new \$50-par common stock for every four shares of no-par stock. In 1926 came a stock dividend of 50% on top of the \$111,576,280 which had already been distributed that year in cash dividends to the fortunate stockholders! And again in 1927, by another "revision" of the capital stock, the owners of stock received two shares of \$25-par stock for each \$50-par share then held.

So the approximately \$13 a share paid to stockholders in 1927 was actually a profit of about \$50 a share as the shares stood before the "revisions" of 1926 and 1927. No wonder this astute corporation has adopted the policy of splitting up its shares to conceal its tremendous profits under the cover of a smaller profit on a larger number of shares.

Figured on the basis of the original capital stock the profits are unbelievably high. It has been computed that a man who bought 100 shares of original stock in 1908 for \$10,000, by exercising his various rights to subscribe to additional stock as it was announced, would by the year 1927 have increased his nominal investment to about \$100,000. But these holdings would then be worth on the market about \$1,675,000 which, with the various cash dividends he had received, would have amounted to over \$2,000,000. His cash dividends to that date would have totaled \$350,309. Even if this original buyer of 100 shares in 1908 had not exercised any of his rights to purchase additional stock, but had merely accepted the rich plums handed out by this gold-coining company, he would now be the holder of 5,047 shares and the total value

of his \$10,000 investment would now be almost \$1,500,000, including \$265,210 in cash dividends. He received this return of nearly 15,000% without the contribution of a single hour of labor to the production of goods. This man should know how it feels to *own* for a living. So should the more modest investor of only \$700 in the original stock of this company, for he is now receiving, without any work on his part, *cash* dividends alone equal to the entire yearly wage of the average worker on the company's pay roll.

But the great mass of profits have not gone to the holders of a few shares of stock. There is the Du Pont company, owning 4,000,000 shares. In a three months' period alone (the first quarter of 1928) that company could report an income from G. M. stock of nearly \$15,000,000. Other large holders of the stock, such as the Fisher brothers who are said to hold more than 10% of it, have, of course, made proportionate profits⁷ in addition to millions made by playing the stock on the market in connection with recent bullish periods when the stock reached unusual heights.

One might also tell of the \$2 *extra* dividend (above the regular \$5 a year) paid on each share of common stock on July 3, 1928. This amounted to \$34,800,000. Had the stockholders, such as the multi-millionaire Du Ponts, been willing to "struggle along" without this "extra," and had this amount of money been distributed among the 200,000 employees of the company, it would have meant about \$175 for each one of them. But this, of course, would not have been "good business."

Reports for the first nine months of 1928 showed the net profits of this auto giant were \$240,534,613. This is more than the company ever made before in a full year and 24% more than it made during the same period in 1927. No other company has ever reported such an accumulation of profits

⁷ It has been stated that General Motors has made at least 80 millionaires out of its executive officials alone, excluding all the "outsiders" who have grown wealthy by trading in its stock.

during peace time. (The United States Steel Corporation did somewhat better during its days of war profiteering.) As a result of this phenomenal profit another large slice of melon was cut for the stockholders late in 1928. A stock split-up equivalent to a 150% stock dividend was voted, in addition to another extra cash dividend of \$2.50 a share (\$43,500,000). It was described at the time as "the largest bonus ever distributed to stockholders of any corporation in this or any other country."⁸

Nash Motors Company

This is the company in which the late James Storrow, Boston banker, stated that his group in Lee, Higginson & Co. had invested \$5,000,000 in 1916. In seven years they had taken in a profit of \$100,000,000 from this investment!

One of the largest stock distributions in financial history was made by this company in 1922. The company was piling up profits so high that it could give to the lucky holder of each share of common stock three shares of preferred stock and four shares of the new common stock issued that year.

The year 1922 was thus a very "satisfactory" year for stockholders of Nash. So was 1926 when in addition to a \$13 cash dividend on the common stock the company was able to hand out a 900% stock dividend. This changed the value of shares of common stock, as carried on the company's balance sheet, from \$1,602,000 in 1925 to \$13,887,000 in 1926.

The stockholders have indeed been very well taken care of. It is estimated that \$10,000 worth (100 shares) of the original common stock, which was issued as a bonus to purchasers of the preferred stock in 1916, has a present market value of more than \$208,000. In addition, these 100 shares have received more than \$113,000 in cash dividends since the first was declared in 1919.

⁸ R. L. Duffus, "The Rise of a Billion-Dollar Corporation," *New York Times*, November 18, 1928.

Packard Motor Car Company

This company has been extremely profitable to its owners. It has also built up its business largely from plowing back its profits, and control of the company has remained in the hands of a few Detroit millionaire families for 25 years.

Its record of stock dividends is particularly impressive and indicates the amazing profits that the original stockholders have made from their investment. In 1913 the company paid a stock dividend of 40% ; in 1916 it issued one of 10% and another of 50% ; in 1922 one of 100% ; and in 1925 and 1926 the common stock was again increased by 10 and 15% respectively, through the declaration of more stock dividends for the benefit of the 8,000 shareholders. The surplus earnings of the company were thus continuously capitalized and, as with the other companies, the regular cash dividends were paid, in the years following the stock dividends, on the increased capitalization and not on the original investment. These cash dividends, during the years 1923-1927 inclusive, averaged 56% of the year's net profits.

During the fiscal year ending August 31, 1926, the company reached net profits on its 3,000,000 shares of common stock of \$15,843,587, or more than half of the par value of the stock. But this record was smashed on August 31, 1928, when the company reported net profits of \$21,885,416, equivalent to \$7.28 on each share of \$10 par value stock. Some 57% of these net profits was disbursed during the year in the form of regular and extra cash dividends.

Chrysler Corporation

We may mention here the great strides the Chrysler Corporation made in recent years even before its merger with Dodge. Like the others it has been able to finance a great expansion of its business by turning its large profits back into the business. It had reached an output of more than 1,250

cars a day which is four times larger than the 1916 output of the two companies—Chalmers and Maxwell—which Chrysler took over in 1925.

The company rose from a deficit in 1921 (when it was still the Maxwell company) to \$831,662 net profits in 1922, and then to profits of \$19,597,136 in 1925, and \$17,643,309 in 1926 before payment of federal taxes. In 1927 it showed a net profit of \$19,484,880; this was a profit of almost 23% on its net worth. It was still higher in 1928—nearly \$22,000,000 in the first nine months.

A compilation prepared by the company in June, 1928, showed that \$100 invested in its stock in 1923, only five years ago, has grown to an investment of \$1,977 to-day, including the cash dividends of \$221.

With the addition of the Dodge plants the Chrysler corporation became the third largest manufacturing and profit-producing machine in the industry.

Hudson Motor Car Company

The only money invested in the stock of the Hudson company was the original \$15,000 put in at the beginning. The rest of its invested capital has been built up almost entirely through the reinvestment of profits. These amazing profits can best be shown by enumerating the *stock* dividends that have been distributed; 1% in 1909; 900% in 1910; 100% in 1913; 500% in 1922; 10% in 1924 and 20% in 1926. All this was in addition to the more than generous cash dividends. It has been estimated that the sum of \$10,000 invested in Hudson common stock in 1909 would, even by the end of 1926, have amounted to an equity of approximately \$4,500,000.⁹

Studebaker Corporation

The businessman who invested his money in this concern would also have no grounds for complaint! Had he put

⁹ Epstein, *op. cit.*, p. 250.

\$3,600 into 100 shares of Studebaker common stock in 1915, he would by 1928 have received in cash dividends approximately \$16,126. Furthermore, his holdings would have increased more than fourfold through stock dividends. And the market value of these holdings in October, 1928, would be about \$33,280. He would thus have made a net gain over and above his original investment of nearly \$46,000. This is not as much as the investor made who put his money in General Motors. But it is more than two and one-half times what the average automobile worker made in wages during that same period of years.

There is no room here to discuss the large profits of parts and accessory companies nor of those making profits out of the sale of cars to the consumer. As competition between producers grows sharper, and as each tries to force more cars on the market, the cost of selling cars increases enormously. One investigator has estimated that of the \$3,000 paid for one of the higher priced cars, only about \$180 goes to direct labor cost, while about \$1,200, or nearly seven times as much, goes to pay those engaged in selling the car—advertisers, show room proprietors, salesmen, demonstrators and the like.¹⁰

In spite of what this investigator calls the “unbelievably low” manufacturing costs, all those who handle the car in the course of its distribution absorb an increasingly heavy profit. He gives another example from the accessory field. On a certain article labor costs have been reduced to slightly below 35 cents. “After adding the cost of the material, overhead, handling and selling,” the manufacturer sells it for \$5 and makes “a very fair profit.” But the consumer pays for

¹⁰ J. J. Jackson, “The High Cost of Selling,” *New Republic*, July 25, 1928.

this product anywhere from \$17.50 to \$23.50, "marked down from \$25.00, which is the list price." The high price is very largely due to the "great cost of selling a highly competitive article," and the large profits taken at the various steps from factory to consumer.



CHAPTER III

BANKERS, MERGERS AND PROSPECTS

The Bankers

BANKING houses, especially those in New York, were not interested in the automobile industry during its first few years of growth. The bankers who helped to finance the famous United States Motor Co. were unsuccessful. Their experiment did not serve to popularize automobile stocks with banking investors. It was only in later years that the bankers began to make millions in the financing of companies and speculations in motor stocks. Then personal control of many companies gave way to banker control. A few examples may be given.

In 1911 the Studebaker Corporation announced the sale of a large block of preferred stock which was purchased by a syndicate composed of Goldman, Sachs & Co., Lehman Bros., and a London company. At the same time representatives of these two New York banking houses became members of the Studebaker directorate. These two firms are still connected with the financing of Studebaker, and are represented on its board of directors.

The Chalmers Motor Corporation, in 1916, sold a large number of its shares through J. S. Bache & Co. and Charles D. Barney & Co. Both these banking firms were represented on the Chalmers directorate. The Paige-Detroit Co. (later the Graham-Paige) followed along the same lines, the bankers who floated their issues being on the board. These are examples of companies, the control or partial control of which passed into the hands of bankers.

Bankers have gained control also in the course of the formation of new companies in need of immediate financing, or the "reorganization" of old companies in need of new capital. A classic example was the case of General Motors Co. in 1910. New financing was arranged for through J. and W. Seligman & Co., Lee, Higginson & Co., Kuhn, Loeb & Co., and the Central Trust Co. of New York. The bankers chose six out of seven members of the company's finance committee as well as the five voting trustees who in turn nominated a majority of the directors of both the parent company and the subsidiary companies. James Storrow of Lee, Higginson & Co. became chairman of the finance committee in full charge of the company's fiscal affairs.

The stocks and bonds of General Motors, issued in 1910, were the first automobile securities of any kind to be listed on the New York Stock Exchange. Thereafter this company remained in the control of bankers; the names changed, but the control remained. In 1912 Charles Nash, closely associated with Lee, Higginson & Co. was elected president of General Motors. In 1915 when the first voting trust agreement expired and a new board of directors was formed Pierre S. Du Pont was named president and J. J. Raskob, treasurer. L. G. Kaufman, president of the Chatham & Phenix National Bank, and one other Du Pont man were also on the board. This step definitely marked the beginning of the control of General Motors by the Du Pont and Morgan interests. Representatives of the Chase National Bank and the Guaranty Trust Co. were also on the board.

The Morgan interests proper gained a firm foothold in 1920 when General Motors faced a financial crisis. On the board were Edward R. Stettinius, George F. Baker, Jr. of the First National Bank, Seward Prosser of the Bankers Trust Co., Owen D. Young of the General Electric Co., W. H. Woodin of the American Car and Foundry Co. and C. M. Wooley of the American Radiator Co., all of them

Morgan men. Durant, the founder of the company, was definitely ousted and the Du Pont-Morgan group has since been in complete control.

It is interesting to note the name of Seligman appearing again and again in the annals of automobile companies. After losing control of General Motors this firm turned to the Pierce-Arrow company. Lee, Higginson also had many connections in the industry. Together with Seligman they bought the Thomas B. Jeffrey Co. in 1916 and elected to its board of directors several of the men who had been on the General Motors board before these banking interests were supplanted by Morgan and Du Pont. A description of the beginning of the present Nash company which grew out of the wreck of the old Jeffrey company is given by Seltzer in his *Financial History of the American Automobile Industry*. He quotes from an interview with Mr. Storrow of the Higginson firm:

I picked him [Nash] to be head of General Motors. In five years he turned a wreck into a concern having \$25,000,000 in the bank. When Durant took control of General Motors away from us, I wired Nash to come here and I said: "Charlie, you did a fine job of G. M.; if you could do that once, you could do it again; look around for another wreck; I'll back you." He picked the Jeffrey outfit which we bought for less than \$5,000,000. Nash made a hundred million dollars out of it for us in seven years.

Representatives of Lee, Higginson & Co. are still dominant on the Nash board.

But the largest outright purchase of an auto company by bankers was the Dillon, Read & Co. purchase of Dodge Brothers. This was the first time that Dillon, Read had been important in automobile circles. Since that time the Dodge properties have been taken over by Chrysler. In the buying or "reorganizing" and stock watering of the Dodge business in 1925, Dillon, Read gathered immediate cash profits of

\$27,250,000. In the merger with Chrysler in 1928 it is estimated that this banking house cleaned up an additional \$11,625,000, making their total pickings from the whole transaction close to \$40,000,000. Clarence Dillon is now a member of the finance committee of the enlarged Chrysler corporation, now known as Chrysler Motors.

Other bankers who have played an important rôle in the automobile field are Kidder, Peabody & Co., who acted as managers and policy determiners in the reorganization of the Wills-Sainte Claire Co., and Hornblower & Weeks who reorganized the Chandler-Cleveland Co. The name of Hornblower & Weeks has also become famous through their repeated offers of a billion dollars for the control of the Ford plants, offers which, however, have always been refused.

A few more examples of banker interest in the industry may be mentioned. Salomon & Co. of New York were among the banker sponsors of the Willys-Overland Co., and Packard has been financed by Hayden, Stone & Co. and other Wall Street houses. Motor Products Corp. has sold its stock through J. S. Bache & Co. Hupp has long had the financial coöperation of Ladenburg, Thalmann & Co. and A. G. Becker & Co. The Chase National Bank is also represented on the Hupp board of directors.¹

In a few companies control still remains in the hands of

¹ The following banking and investment houses are represented on the board of directors of typical truck and passenger car companies. (Banker representation and control is equally characteristic of parts and accessory companies.):

Mack Truck: Hayden, Stone & Co., Chase National, Dominick & Dominick, Mechanics & Metals National, and the Mellon National Bank of Pittsburgh.

Stutz: Chatham & Phenix National, Chase National, Charles M. Schwab interests operating through these banks.

White Motor: Chase National, Charles D. Barney & Co.

Chrysler Corp.: J. S. Bache & Co., Central Union Trust Co., Blair & Co., Chase National, Dillon, Read & Co.

Jordan Motor Car Co.: Board of Directors includes an investment banker and two presidents of trust companies.

the originators rather than the bankers, their expansion having been financed almost entirely out of reinvested profits. The chief of this group is, of course, the Ford company. There have been times in the history of the Ford company when Ford would have been grateful for the "helping hand" of the bankers if they had been willing to leave control with him. But they were unwilling to do this.²

With the major exception of the Ford company we may say that bankers have made very fine pickings in the industry. They have shared in the exorbitant profits. Their influence is constantly growing as ownership shifts to their hands. They are having much to do with the current tendency toward larger mergers and consolidations.

Consolidations

Between 1903 and 1926, inclusive, a total of 181 companies were engaged in manufacturing *passenger* automobiles. Beginning with 24 companies in 1903 an additional 157 companies entered the field between 1903 and 1926. However, most of them did not survive. By the end of 1926 some 137 of them had retired from the business leaving only 44. Eleven of the total had been in business during the whole period; others had existed for only a year or two, while the average length of life of all the companies was 9.4 years.³ The number of active producers of passenger vehicles numbered 88 in 1921; just one-half of that number remained in 1926. In fact, there were only 32 left in 1928 if we count all General Motors divisions as one company and Chrysler-Dodge likewise.

Census Bureau figures show the same trend toward consolidation. In 1904 there were 178 plants or establishments manufacturing motor cars and accessories. The number rose

² In 1928 Ford Motor Co., Ltd. (of England) sold shares through both American and British bankers.

³ Epstein, *op. cit.*, p. 164.

to 2,830 in 1919. From that time on the number has been steadily decreasing although the number of cars produced and workers employed has risen. The tendency has been largely towards the concentration of manufacture in fewer plants and by fewer companies owning these plants. The tendency for establishments (including branch assembly plants) making complete motor vehicles, but *not including bodies and parts plants*, is shown in the following table based on the Census of Manufactures:

Concentration in Motor Vehicle Industry

<i>Year</i>	<i>No. of Establishments (including branch assembly plants)</i>	<i>Average No. of Wage- Earners</i>	<i>Average No. of Wage- Earners per Estab- lishment</i>
1914	300	79,307	264.4
1919	315	210,559	668.4
1921	385	143,658	373.4
1923	351	241,356	690.3
1925	297	197,728	679.4
1927	262	187,835	716.9

Up to 1928 there had been two important attempts at large consolidation in the industry, one successful and one a failure. The successful one was the General Motors Corp. which absorbed five financially sound automobile concerns in addition to Fisher Body, Yellow Truck and Coach, and many parts and accessory companies. The other attempt at combination was under the leadership of Benjamin Briscoe, head of the Maxwell-Briscoe Co. It was known as the United States Motor Co. and acquired the ownership of several plants widely scattered geographically. After several years the venture was abandoned and the Maxwell Motor Corp. was organized, which later (1925) became the nucleus of the new Chrysler Corporation.

In the early days of the industry a small *entrepreneur* with

but little capital had some chance of surviving in a market which, for many years at least, could not be satisfied. But with the stabilization of the market and sharpening competition between companies, the small company has less chance to succeed in competition with such colossal and flexible units as General Motors. Large companies can not only do more widespread national advertising and more technical research. They can also make a more diversified line of cars adapted to changing styles and demands. The bankers who have become covetous of the great profits to be made in the industry are naturally more accommodating to the large concerns with more prospects of survival and greater profits. All this encourages consolidation, and will end with only a few large companies dividing the field.

Until the middle of 1928 Ford and General Motors stood out as the two giant organizations in the industry. Then the much talked of and long awaited mergers in this field began in the merger of the Chrysler and Dodge companies. On May 30 a plan whereby the Chrysler company was to acquire the entire Dodge assets was announced, and in September it was consummated. The new enterprise has total combined assets of about \$243,000,000 and will be third in size in the industry. However, compared with either Ford or General Motors it is not gigantic. The General Motors total assets, for example, measure about four and one-half times those of the new Chrysler-Dodge combination.

In January, 1926, General Motors produced 21.9% of the passenger cars sold, Ford 44.2 and Chrysler and Dodge together 8.1. In January of 1928, with Ford practically out of production, General Motors made 50% of the cars sold and Chrysler and Dodge over 12%. With Ford winning back even a half of his former production, and planning an output of possibly two million in 1929, it is probable that at least 80% of the cars will now come from the plants of these three companies.

With the Chrysler-Dodge merger came many rumors of other possible consolidations. It appears inevitable that the smaller manufacturers should be worsted in the tightening competition of the market and the demand for larger scale production. Pierce-Arrow has already been forced to seek shelter under the wing of Studebaker. In August, 1928, the old Pierce-Arrow company was turned over to a new company with the same name, full control over which was obtained by Studebaker for \$2,000,000. This transaction put another small company out of the picture.

Various other companies have recently merged. The Brockway Motor Truck Corp. and Indiana Truck Co. united in 1928. Late in 1928 the Hupp Motor Car Corp. acquired control of the Chandler-Cleveland Motors Corp. forming a new concern with total assets of over \$40,000,000 and securities worth on the stock market well over \$100,000,000. What steps have been taken toward further mergers only those on the "inside" can know. But that others are now being considered is beyond dispute.

This merger movement in the automobile field is but a manifestation of a tendency toward combination and trustification in all fields of finance and industry. In banking, railroads, oil, power, chain stores, public utilities, films, iron and steel, as well as in other lines, this tendency has made itself felt. With smaller companies producing the larger percentage of failures, with larger companies usually showing by far the greatest profits, with capital in large amounts necessary to conduct modern mass production industry, with rationalization on the increase, consolidations are coming in every sphere. There is room for more combines in the motor industry where a dozen companies are each making less than 1% of all the passenger cars produced. There are still many little motor fish to be gobbled up by the big ones. The bankers are also planning for still further consolidations in the parts and accessories field.

Still another tendency should be noted in considering the prospects for mergers of automobile concerns. Inter-industrial consolidations under the direction of large banking houses are being quietly effected. For example, the Federal Trade Commission in 1927 ordered an investigation into the proposed "linking up" of Du Pont, United States Steel, and General Motors, all controlled by J. P. Morgan & Co. The resolution called for an "inquiry to be made into the relationship, direct or indirect, among the United States Steel Corporation, the General Motors Corporation, and the E. I. duPont de Nemours & Co. tending to bring them or any other important industrial corporations under a common ownership, control or management."

According to *Automobile Topics*, "Wall Street dismissed this incident with a shrug." The report of the Commission, early in 1929, revealed the close connections of the companies and their financial relationships, particularly as between Du Pont and General Motors. The Morgan firm was, of course, the connecting link.

A war situation would immediately strengthen the tendencies toward the further merging of these three great companies. For the significance of such a "tie up" of steel, chemicals and motors can be understood best in relation to its military value. All three are war industries. Automobile plants were used to make airplane motors and all sorts of munitions during the last imperialist war. The factories can be quickly converted for making war materials. A super-industrial combine of this kind, under the control of the House of Morgan, is but a logical part of the preparations now being made for the next international conflict by the leading capitalist governments.

Outlook for the Industry

What will be the future of the motor industry? All authorities agree that it has reached its maturity. They also

agree that it is now much easier to make a car but harder to sell it. Predictions that the "saturation point" would soon be reached have been made from time to time. On the other hand optimistic pictures have been painted of a country with 50 million cars by 1975 and a steadily increasing annual output.

It is true that the absolute "saturation point" has not been reached, but it seems to be nearing. There are now 5.1 persons in the United States for each motor vehicle, including, of course, all trucks and buses.⁴ Even those who were more hopeful a year or so ago now talk of a "stabilized market" for the next three or four years absorbing a little over 4,000,000 cars a year. But no matter how far the industry may be from a hypothetical "saturation point," competition between the remaining auto companies is bound to become increasingly keen.

There are various market outlets for the cars now pro-

⁴ The fact that there are some 25 million cars registered in this country and that the population is about 125,000,000 does not mean that there is a car for every family of five as the American "prosperity" dogmatists would have us believe. The experts on cars give us no reliable figures on the percentage of car-owning families. (A limited survey by the General Federation of Women's Clubs yields a figure of 55%, which is undoubtedly too high). If the two-car families run to the estimated 3 million, we must first deduct that number from the total of cars in the country and give them to the small owning class group of about 13% that owns 90% of the nation's wealth. We must note also that in the cars registered there are millions of antiquated Fords and Chevrolets, and all sorts of salvaged junk contrivances worth anywhere from \$5 to \$100. There are, furthermore, some 3 million trucks, buses and taxicabs in use, many belonging in fleets of thousands to corporations and railroads. We might also deduct the passenger cars used, principally for business purposes, by salesmen, farmers, commercial firms and others. We may note also the disproportionately large number of cars in the garages of the small rich families. Taking these various factors into consideration we see that the "one to five" ratio signifies very little in terms of actual real income or "prosperity" for the majority of families in the United States who are far removed from the possibility of car-ownership, even of a second-hand contraption on the installment plan.

duced—replacements, new car buyers, multiple ownership and exports. We may examine these in turn.

Some 2,000,000 cars or less are scrapped annually in this country and have to be replaced by new ones. Even with the average life of a car now estimated by General Motors experts as about six years, a replacement market of more than 2,000,000 cars a year is not contemplated by any of the men whose business it is to make predictions about the industry.

As for the increase in the number of new owners of cars, the records show that there has been a steady decline in the *additions per year* to the number of cars in use, and this tendency is bound to continue. The number of "new buyers" of cars will keep going down. How many there will be each year will depend, of course, on the growth of population and the general prosperity of the country. With the average income of some 16,000,000 wage workers now running under \$25 a week, and with labor generally weak and unorganized, a prospective decrease in new car owners among the working class is all the more certain. Even a slight depression in American industry means wage reductions and consequent reductions in the purchasing power of the masses. A financial and industrial crisis like that of 1921 would be still more disastrous. Either would lead to speedy curtailment in the sales of cars, and particularly in the lower price ranges, comprising the bulk of present production. With industries like coal, textiles, shoes, and agriculture already in a slump, with unemployment an increasingly serious factor, the rate of decline in new car purchasers in these sections of the working class is even greater.

The motor salesmen have made much of the development of the two-car family among the middle and more well-to-do classes. They are doing their utmost to popularize the idea of two or more cars for a family, hoping that this, added

to the many new style variations, will provide a large market. But even at the end of 1928 only about three million families in the United States were reported in this category.⁵ The great mass of car owners who run Fords and Chevrolets are not likely to become "dual owners." The possibilities of increasing domestic sales in this direction seem very limited.

Exports

Monopolistic capitalism always looks abroad for an outlet for "excess" production. Over 500,000 cars are now being exported yearly from the United States and Canada, or about 12% of American production.⁶ There are more than 30 American assembly and manufacturing plants abroad using imported American parts and accessories. The growth in American assembly plants abroad is particularly marked in recent years. In Germany alone, American assembly plants and sales concerns already employ 25,000 persons.

American cars and assemblies are now sent all over the world, chiefly, however, outside of Europe to such places as Australia, Argentina, Brazil (where 98% of the passenger cars in use are of American make) and British Africa. American companies are meeting with the closest competition in Europe, especially in France, Germany, Italy and Great Britain where extensive auto industries have developed in recent years. Producers in these countries are gradually adopting American technical methods and effecting mergers. Rationalization has made considerable headway in the last few years. Corporations there may be expected to put up a vigorous fight not only to keep down American sales expansion in their home countries but to compete with American firms in other countries. The high tariff and high

⁵ *Automotive Daily News*, December 4, 1928.

⁶ The 1928 figure reached over 800,000, a 26% increase over 1927.

internal taxes which European countries have placed on American cars, particularly the British tariff, block the way to more exports. There has also been much talk of a European automobile cartel, an agreement among the manufacturers of certain countries to further restrict the importation of American cars. Discussion of large mergers is increasing in Germany, Belgium, Great Britain and France. These countries are also playing upon patriotic sentiments to make their citizens patronize home industries rather than American. "Buy British Cars and Be Proud of It" is one of the slogans in Great Britain.

Even in countries outside of Europe, American companies are already meeting competition from European companies, particularly from the British, who are also approaching a domestic saturation point and are eager to build up their exports. American companies will also meet certain restricting factors, particularly in non-European areas, such as the high price of gasoline, the slow growth of installment selling schemes, the poor development of roads, and the low purchasing power of the population. Wages elsewhere are, of course, considerably lower than in the United States and nothing like the purchasing power can be developed there that has been manifested here.

In spite of these factors, however, it should be noted that sales of American-made automobiles abroad have increased by 425% during the past five years, and that automobile exports rank third among the exports from this country. General Motors especially is active in foreign fields, with 19 assembly plants and 22 individual subsidiary companies and more than 6,000 distributors and dealers in more than 100 foreign countries. Fifty per cent of the cars sold abroad are General Motors products.

The political reflection of this expansion of the American car market will, in time, grow more significant. Commercial rivalry with European countries, developed in the race

for markets for excess production, will have an increasingly important influence on the development of American imperialism. The whole international struggle for economic and political power will be affected by this factor.

Fierce Competition Ahead

The *Wall Street Journal* estimates that the "practical capacity" of the present American plants is about 7,700,000 cars a year ("theoretical capacity" is estimated at about 10,000,000). And experts on the industry tell us that the various manufacturers are in a position easily to produce 7,500,000 or more annually in the coming years. Taking this figure, and assuming that cars are produced even at the 1928 rate of somewhat over 4,500,000 a year, you find that a practical productive capacity for nearly 3,000,000 cars is still standing idle. This undoubtedly means a tightening of competition between firms, all seeking to reach their own maximum capacity and profits. As Col. L. P. Ayres of the Cleveland Trust Company put it late in 1928: "It seems probable that new concepts of competition will develop in the automobile industry in 1929." Or more bluntly in the words of the *New York Times* correspondent in Detroit: "There will be a fight and the factories know it."

This intensified competition, due to the overdevelopment of the industry, is seen particularly between the producers of the lower-priced cars. The appearance of a six-cylinder Chevrolet model on the market at the end of 1928 caused an avalanche of advertising by Ford and other companies making cars within this price range. Price cutting followed in several lines.

There are, as we have seen, few unexploited fields for sales in the United States, and the foreign market is limited by the factors we have mentioned. The problem of the corporations, each with a growing productive capacity, will be to reduce costs and defeat the others in bidding for cus-

tomers. There will not only be a fierce trade war between the big producers, each with planned increases in production schedules, but a violent scramble among the smaller companies for the sales that will be left after General Motors, Ford, and Chrysler have taken at least 80% of the business. Mergers will undoubtedly follow in the wake of this desperate competition.

No matter which company wins out in this race it is plain that the workers in the industry are in for harder days. The boom period is definitely over. With the millions of shares of pyramided stock crying for regular and extra dividends, with each company striking out harder for its place in a limited market, wage cuts and worsened conditions of work are inevitable. Exploitation of labor is intensified. Organization will be needed to defend such standards and conditions as workers have at present and to struggle for better ones.

CHAPTER IV

THE AUTO WORKERS

WHAT kind of human beings are the workers who happen to have been drawn into this great modern American industry producing motor cars, parts and accessories? What is their skill, age, sex, color, nationality? These are some of the questions we want to answer briefly in this chapter.

Machine Tenders

In the early days of the industry, when shops were small and production slow, the skilled workers predominated. Carriage and wagon builders, painters, carpenters and turners, steamboat engine builders, furniture industry craftsmen and skilled metal men from other trades turned their hands to the building of the first crude cars. But the steady mechanization of the industry has swept away their numerical superiority and left the "typical auto worker" a mere machine operator with a job that can be picked up in a few minutes or a few hours. The skilled mechanic with "previous experience" and apprenticeship training is almost completely displaced by the march of the automatic machine and the rush of the new technical processes. For example, as many as 34 job designations are now given to work that was formerly all done by one metal craftsman.

The processes in this industry, particularly in its larger plants, are more subdivided, more simple, more specialized, "serialized," and standardized than in any other industries here or abroad. Workers roughly classified as unskilled are now in the vast majority.

We have seen no recent study dealing with the skill

required for the various jobs in automobile plants. However, a report on the metal trades of Cleveland made by R. R. Lutz in 1916 shows us that even then the industry was composed largely of low-skilled workers. This study divided the list of jobs in a "typical automobile factory" into the "productive operations, the assembling work, the finishing, inspection and miscellaneous." The productive operations, taking in 54% of the tasks in this plant, were found to require little technical knowledge and skill, "all the thinking, planning and experimenting" being done in the engineering and designing departments of the plant. Even in the older trades of molding and core making, which fall within the productive division, the number of skilled men was very small. Of course, in the assembling operations, "specialization is carried to the *n*th degree." This group includes about 17% of the jobs in the typical plant. The rest of the workers in the plant are employed on inspection and in "miscellaneous" trades ranging from laborers to millwrights, but most of them are unskilled. Thus, putting the various jobs into classes, depending on the time it took to learn them, this survey, more than 10 years ago, found that 44% of the jobs could be learned in one month or less, many of them, of course, in a few hours or days, while 15% could be learned in 2 months, 12% in 3 months, 2% in 4 months, 14% in 6 months, 2% in 6 months to one year, 4% in one year, 4% in 2 to 3 years, 2% in 3 to 4 years (blacksmiths, millwrights and carpenters) and 1% (tool-makers) in 4 years. Only the last few occupations could rightly be designated as "skilled."

According to this study not more than 6 or 7% of the workers in the industry were in skilled occupations. The degree of skill required has since been greatly reduced by the introduction of numerous mechanical improvements and various types of automatic machinery.

Henry Ford in his book, *My Life and Work*, published

in 1922, puts the percentage of skilled workers in his plants even lower than the study from which we have just quoted. He estimates that in his plants 43% of all jobs require not over one day of training, 36% from one day to one week, 6% from one to two weeks, 14% from one month to a year and 1% from one to six years. That is, 85% of the workers could learn their tasks within one month. Personnel men in other Detroit plants give somewhat similar percentages. A Hudson official regards less than 5% of his workers as skilled. A Chrysler official states that possibly 75% can be broken in within a day or two. Others have estimated that from 60 to 75% of their workers reach their maximum efficiency within a few days after starting. These figures do not, of course, apply to every plant mentioned in this volume. In such plants as Timken's, specializing in axles, or in the Rolls-Royce plant, the proportion of skilled men will run much higher. But for the average plant manufacturing finished vehicles these estimates will hold without substantial variation.

But Prof. Charles Reitell of the University of Pittsburgh points out that the old terms "skilled," "semi-skilled" and "unskilled" are inadequate and confusing when applied to the automobile industry.¹ He classifies auto workers rather into three groups: (1) the tenders, who operate and watch the machines and perform specialized tasks as the material flows by them on the belt; (2) the technical force who design, plan, blue-print, route and cost the work; and (3) the clerks, inspectors and foremen who record what is done and check and keep watch over others. He estimates that 25 to 40% of the operatives in a typical plant are machine tenders, 10 to 15% are assemblers, 5 to 10% are what were traditionally "skilled workers" (those who have a trade), 5% are inspectors and testers, 15% are helpers, and 15% are laborers.

¹ *Annals*, v. 115-116, November, 1924, p. 37.

He describes each of these groups in detail and shows that the tendency (his investigations covered 1912 to 1923) is for the tenders and assemblers to increase in number while "skilled workers" and common laborers are both decreasing with the development of improved automatic and semi-automatic machinery. He declares that the chief qualification for the numerically increasing tender is ability to maintain a constant machine pace, eliminate all waste and false motions and follow printed or oral instructions from his "superiors." The task of the worker requires simply speed, dexterity, alertness and nervous endurance to carry the "robot" through dull, monotonous, fatiguing, relentlessly automatic operations.

The Transient Worker

This being the sort of machinery used and the sort of jobs to be had in the industry it is not a coincidence that there should be in Detroit so many workers who have no background of craft experience. The typical worker is, therefore, not a "metal tradesman." He might better be described as the unskilled farm or small town young man turned machine minder. Many such workers are in and out of the automobile centers depending on the liveliness or dullness of the industry. It has been estimated that in Detroit alone there are some 75,000 young unmarried men who have come in recent years, some in recent months, from the country or the country town. They constitute the so-called "suitcase brigade." This type of worker is taken on in busy seasons and dumped out in dull ones. He may learn to run a punch press or to assemble a part of a motor. But he learns no definite skill or trade as he drifts from plant to plant—or even when he stays in the same one for a time. He is quite likely to regard his job as a temporary expedient and to be dreaming about leaving the "auto game" and opening a garage or a filling station of his own. (A

few, of course, do reach this goal.) Such a worker usually lives in a boarding or rooming house and perhaps saves enough out of his wages to "go in with a buddy" and buy a second-hand Ford on the installment plan.

The transient character of a part of Detroit's automobile labor has, of course, been specially evident during periods of industrial expansion and recession. During the post-war upward swing of the industry the rush to Detroit from the Michigan countryside was partly responsible for the thousands of vacant farms and village dwellings reported in that state. And when the following depression set in it is estimated that possibly 200,000 of the population of Detroit joined in the return to the villages and farms.² This back and forth movement develops a type of worker, who is relatively footloose. In recent years, however, the "suitcase brigade" has decreased and periods of lay-off have fallen, as we shall see, upon workers who are less mobile, and hence less able to escape from the hardships of unemployment.

The Southerner

Among the most transient of the workers are those from the Southern states who may be found on the employment lines especially in the spring of each year. No figures are available on the number of workers in Detroit, Flint or Pontiac who come from the South and Southwest, but any one who knows the automotive employees of these cities is struck by the large proportion who apparently hail from there. Southern whites, especially from Tennessee, Kentucky, Arkansas, Alabama, Mississippi, are increasingly in evidence in recent years. And thousands have come from Missouri, bus loads at a time. Certain plants report as high as 50% of their new employees during the last few years as coming from the South. Some of these workers, if assured of three months' work, bring along their families, which

² Arthur Pound, *The Iron Man in Industry*, p. 4.

leaves them all the more stranded when slumps and lay-offs come.

Most of these workers have not been in factories before, and, according to Detroit employment managers, at first "don't know what work is." But they are soon "developed" by the bosses. According to an official of the Detroit Employers' Association, these workers constitute an excellent bulwark against "reds and Bolshevism"—to the Southern newcomer Bolshevism and unionism are practically synonymous terms—and they are, hence, what the corporation executives regard as "good Americans." The companies would always want the city full of them in case of a strike, for it is believed they would make the best strike-breakers.

When these men first arrive from the South, and before they have gone through the experience of waiting on the employment lines, they are inclined to have exaggerated notions of wages and conditions in the industry. Some have even been known to arrive in Detroit with their overalls on, expecting to be hired immediately upon their appearance at the factory gates. As we shall see in Chapter VII, employment is not quite so easy even during boom years. Although they have been told they will get "big wages," these workers, when being hired, seldom ask about the pay. They must have a job and they take what is handed them regardless of pay. Unlike the skilled painter or machinist, for example, they have no exact knowledge of the wages paid in various plants.

Workers from Everywhere

But the Southern workers are only one element in the source of supply of Detroit factories. The workers, whether transient or more permanently settled, have come from "all over," many, as we have seen, from the farms and villages of Michigan, many others from similar districts of Indiana, Minnesota, Wisconsin, North and South

Dakota and all the states of the Northwest. The 1920 census showed that Detroit had some 40,000 of its population born in Ohio and almost as many born in New York.

Originally the labor supply of Detroit factories was a mixture, a heterogeneous group, and it has remained so. At the beginning of the industry came the fairly skilled workers from the old steamboat engine business of the Great Lakes and the carriage and vehicle factories of the Middle West. There were workers from failing Michigan copper mines, lumberjacks from the logging camps, thousands of Canadians, in addition to the already mentioned farm hands. During the railway and mining strikes of 1922 there were temporary incursions from those fields, as also in 1926-27 during the widespread unemployment and strikes in the mines. Workers in sick industries, farmers tired of carrying mortgages,—all have turned toward Detroit in their distress.

All this does not mean, of course, that by this time there is not a relatively settled group among the auto workers. No statistics are available but certainly several thousand of the workers in these motor cities are now stabilized by marriage and children, and the few skilled by slightly more permanent jobs. During a busy season this more settled worker may begin to save and pay first installments on a home, which often in time becomes a burden to him. For it is such workers who, during a period of depression in Detroit, were described by the secretary of the local employers' association as "persons who suffer because they have received too much property to enable them to move freely in search for other work." This house with which he is encumbered during periods of slack-work the familiated worker will be paying for on a time basis. His wife usually rents out rooms to other families and single men, or takes in boarders to make ends meet. This type of worker may also have one or more of those premier American "comforts"—a cheap radio, a phonograph and sometimes a car. It is

seldom that the worker with a family and small children can undertake to meet installment payments on both a second-hand car and a home. It must not be assumed, however, that the home-owning family is the typical one in the industry. For in 1925 only 124,000 of all the 308,000 families of *all* classes in Detroit, or about 40%, owned their own home. What proportion of these were workers in automobile plants was not reported.

We have been discussing here chiefly Detroit and adjacent cities. But the same conditions prevail elsewhere in the motor factory area of America. There will naturally be local variations. Take Nash, for example. His workers in three Wisconsin cities come from the lumber camps of the northern end of that state as well as from Michigan and Minnesota. They come also from farms. Nash prefers these workers to the city workers who are used to higher pay and know something about unionism. As the jobs are mostly unskilled no industrial experience is necessary. The worker with the rural background is greatly preferred by the labor managers who want to keep their workers individualistic in their outlook and disinclined to look favorably upon the benefits of unions.

Foreign-Born Workers

Although the great majority of workers in the industry are native born the importance of the foreign-born must not be lost sight of, especially in connection with campaigns to unionize the industry. The Census of Occupations in 1920 found that out of some 121,000 "semi-skilled operatives" some 34,000 were foreign-born, and out of 83,000 "laborers" in the industry 39,000 were foreign-born. In other words, well over one-third of the 204,000 workers covered by the census were born in other countries. The great expansion of the industry and the cutting off of immigration may have

somewhat reduced this proportion but how much will not be known till the 1930 census is taken.

Although the majority of the population of Detroit is native-born other nationalities are heavily represented. The Canadians and British are very prominent, due to the proximity of Canada. It is estimated that some 15,000 British subjects commute from the border cities every day. Thousands more have made their home in Detroit and the adjacent auto cities. The mixture of nationalities in the plants is characteristic of all American basic industries. From 55 to 60 nationalities are reported as working at least in the larger plants. Dodge, for example, reported 57 in 1928; Ford reported 58 ten years ago.

In addition to Canadians, English, Irish, and Scotch, the Poles, Germans, Russians, Italians, Hungarians, Austrians and Belgians are among the dominant groups in the Detroit plants. The Poles are particularly strong in certain sections, nearly 10% of the population of Detroit being Polish; the Hamtramck factory district is almost entirely Polish. Population maps show them bunched around the Ford, Dodge and General Motors plants. Mexicans are also being employed in considerable numbers in recent years. About 3,000 are now employed at the Ford plants, chiefly on the rougher jobs.

At least 50% of the automobile concerns require first papers or naturalization papers from their employees. As a result the number of non-citizens is now much lower than formerly. For example, only 3% of the workers in the Flint Chevrolet plants are reported as aliens.

The Negro Worker

Negro workers are employed in considerable numbers by several companies. The southern Negro has for years been hearing somewhat roseate descriptions of conditions in Detroit and adjacent cities. These descriptions have been

circulated by bus companies, employment agencies, labor agents, and even by the advertisements and placards of certain companies. The Negro has heard of "high wages" and also of Ford's no-discrimination policies. Consequently, during the northward war-time migration of 1917-1918 and again in 1923 when desperate economic, social and political conditions in the South drove them on, it was natural that many Negroes should drift to the motor cities where conditions were believed to be better than those they had left at home. The Negro population of Detroit increased over 600% between 1910 and 1920.

How many Negro workers are employed by particular plants and companies? A survey called "The Negro in Detroit" made by a committee appointed by the mayor of that city³ reports that in 1926 out of the 100,000 local employees of the Ford company some 10,000, or 10%, were Negroes, 6,000 of them in the Fordson plant and 4,000 in the Highland Park plant. The same survey reported the following percentages for the Negro personnel of certain representative automotive companies: Hupp 12, Studebaker 10, McCord Radiator 10, Cadillac 5, Murray Body 4, Chevrolet 3.5, Dodge 3.5, Packard 3, Timken-Detroit Axle 2.5, Chrysler 1.5, Hudson 1.2, Lincoln 1, Paige-Detroit 1. All the other establishments investigated reported a Negro personnel of less than 1%.

The same survey estimated that there were in 1926 from 25,000 to 30,000 Negro wage-earners in various establishments in Detroit and about 16,500 of them were employed in manufacturing and foundry work. It is fair to assume that a large proportion of the latter were in automobile factories.

Although the Negroes are capable of developing into the most skilled workers, motor companies have employed them

³ *The Negro in Detroit*, (Section III) Detroit Bureau of Government Research.

primarily for processes involving chiefly unskilled manual work. As one Ford employment official has stated, "Many of the Negroes are employed in the foundry and do work that nobody else would do." The writer noticed in one Chevrolet plant that Negroes were engaged on the dirtiest, roughest and most disagreeable work, for example, in the painting of axles. At the Chrysler plant they are also used almost exclusively on paint jobs, and at the Chandler-Cleveland plant certain dangerous emery wheel grinding jobs were given only to Negroes. The head of the Negro employment bureau under the Michigan Department of Labor and Industry complains that in every Michigan industry the Negro is given almost invariably the poorest paid jobs regardless of his ability. And representatives of the Detroit Urban League declare that the Negro almost always gets the rougher jobs and is usually not given a chance at the skilled operations unless he has already acquired some skill. It is more difficult for a Negro to get promoted. Opportunities for more skilled jobs are even fewer for him than for the white worker.

Detroit workers report illustrations of these discriminations. When the Hudson company, for example, takes on women workers it will pass up the Negro woman except for a scrubbing or cleaning job. And in Packard's, as well as in other plants, Negroes are seldom seen on the assembly lines performing the relatively cleaner classes of work. They will be hired rather for "labor" jobs, to operate trucks, or to sweep floors, and be given a starting wage of 35 to 38 cents an hour. Or they may be taken on as janitors or ice men. Thus the discrimination consists chiefly in assigning them to the lower paid jobs, and keeping them there regardless of their ability.

It has been frequently pointed out that Ford does not discriminate against the Negro but places him beside the others on the assembly lines. A Ford foreman may have

summed up the Ford policy toward the Negro when he explained that it was a good thing to work white men alongside the Negroes, for a certain competition would be set up inducing them both to make greater efforts and thus securing greater output from both. In the absence of a piece rate system of wages such competition doubtless helps to stimulate Ford production.

The Young Worker

In certain Michigan automobile plants studied by the Federal Children's Bureau in 1920 it was found that from 9 to 12% of the employees were under 21 years of age. This was before the depression set in and at a time when the plants were running full blast and employment was plentiful.

The Children's Bureau survey showed that minors were working in comparatively large numbers at the unskilled and semi-skilled operations. They were employed as machine operators, stock and tool-crib workers, laborers and helpers in foundry and core room, truckers, drivers and inspectors. "The lowest proportion . . . was found among the skilled workers." This survey found the young workers also engaged as molders' apprentices, acetylene and electric-arc welders, case hardener's helpers, drill press operators, surface-grinder operators, reamer-grinder operators, milling machine operators, as well as operators on screw-machines, boring machines, punch presses, capping and threading machines, and on the assembly lines, to mention only a few of the operations common to motor plants. They have even been used, as at the Briggs plants, in the dangerous spray painting departments.

Although the wages are lower than those received by adults it is, of course, true that the young unskilled and semi-skilled worker in the industry to-day is earning relatively more than the boy of similar age earned during his

years of apprenticeship before the general introduction of the automatic machine. On the other hand, the young worker's chances of learning a skilled trade are much fewer than formerly. Consequently his wages in his adult years are likely to be relatively much lower than those of the skilled craftsman of former days. The automatic machine in this as in other industries, tends to equalize wages and to bring the wages of adults nearer to those of young workers.

Another tendency, noted in all plants, is for the companies to drop the older and higher paid employees and substitute younger and lower paid workers. For example, after the Hudson company had laid off many older men, incident to changing its models early in 1928, it hired for the new production thousands of young workers of both sexes, and all at lower wages than the adults had been receiving. The Packard company during 1928 was laying off older men receiving 75 to 80 cents an hour and engaging young workers to take their places for 52 cents an hour. The Ford company, in the spring of 1928, fired many older men who had been receiving \$6 or more a day. Their places were taken by boys of 18, 19 and 20 taken on at considerably lower wages. Even in 1926, at the very moment when few of his regular workers were on full time, and many were being discharged, Ford essayed to solve the crime problem in Detroit by announcing that he would employ 5,000 boys from 16 to 20. His purpose, he declared, was to keep them out of mischief. But the net result of this policy was to substitute younger and cheaper workers for the older men, most of the latter carrying heavy family responsibilities. Ford ordered these 5,000 boys to be put at men's work and given what he described as "independence wages," but they were far below the regular rates. Ford, of course, again created the impression throughout the world that he was a great humanitarian.

The general tendency, as we have indicated, seems to be for the younger workers to crowd the older ones out of jobs in the unskilled and semi-skilled occupations. Indeed the auto industry has been called a "young man's industry" chiefly because it is very difficult, on account of the pace of its machinery, for the older man to survive in competition with the speed, endurance and energy of the young fellows. Personnel managers will frankly admit that their policy is to hire workers as young as the law allows and to use them for eight or ten years during the period of their most vigorous productivity. Then they discharge them. Is it any wonder that Detroit workers have been known to dye their hair to disguise their age?

At the Highland Park Plant of the Ford company out of some 44,500 employees at one period about 34,200 were found to be under 40. It is almost impossible for a man over 40 to get a job, and a Ford personnel man has openly stated that the company does not employ men over that age. It is also difficult for a man reaching 40 to hold his job there, no matter how long he may have been scrupulously "loyal" to the company. Where the Ford company does not openly turn out its older men and take on fresh young ones it is likely to drop the older men and then possibly reemploy them in another department or plant for less wages. Many companies such as Dodge refuse to employ any worker over 45 and some other concerns set the limit at 40, except for highly skilled workers. As one Dodge worker expressed it, "The speed-up system is so terrific that after a man is ready for the hospital he is likely to be cast on the industrial scrap heap to starve."

Women at the Machine

As the competition between motor companies increases, as the race for lower labor costs grows keener, as cuts in wages and irregularity of employment reduce the earnings of men,

more women are coming into the industry. These women, many of them married and mothers, are forced to go to work to contribute to the family income. In an industry with no special traditions of skill or craftsmanship for the mass of the workers it is natural that women should press along with the men for the available jobs, at least in certain departments.

The Census of Occupations in 1920 recorded over 15,000 women working as "laborers" or "semi-skilled operatives" in automobile factories, not counting those who might be classified in skilled occupations, such as painters, polishers, or machinists, and not counting also those employed in parts and accessory plants where a much higher proportion of women is used than in regular automobile plants. The 1920 census showed that due to the rapid development of the industry in its early stages, between 1910 and 1920, the number of women working as semi-skilled operatives had increased over 1,400%, while, during the same period, the number of men had increased only 435%.

Since 1920 the number of women workers has grown steadily. By 1925 the Department of Labor and Industry of Michigan reported that 17,250 women and girls were employed in automobile and allied industries in that state, out of a total of 323,301 workers, or over 5%. To-day the number is apparently much greater, although no total figures are available. The Hudson Motor Co. alone employs several thousand; A. C. Spark Plug about 1,800 girls as against 700 men; Ternstedt Manufacturing Co. about 1,200 girls; and a large number work for the Continental Motors Co. Packard is reported to have about 600 on its payroll and Buick about 400, while other plants are said to have a female force of about 10%. The pressure on the women to hunt jobs has been particularly strong during periods when the wages of their men folks were cut through reductions, part time or unemployment. During such periods they may be found

working on the very jobs vacated by the male breadwinner of the family.

Women may be employed in almost any department—in assembly work, polishing, sanding, and buffing, operating cranes and hoists, running giant punch presses, acetylene welding work, minding lathes or grinders—in almost every kind of work except the very heaviest. Even in the core room of the Cadillac foundry 58 women are employed, while in the same department of the Buick foundry women are replacing men on several heavy jobs. They are also used occasionally on dangerous spray painting jobs. At some work, such as assembling small parts, they are conceded to be quicker and more dexterous. In finishing, polishing and upholstery, where much hand work is required, they are considered fast workers, as well as on inspection work, trimming, stock and tool-crib work, and thread machine operation.

A special investigator for the *Wall Street Journal* who studied the plants of the Hudson Motor Co. in 1926 observed that in the operation of cranes lifting motors and carrying them to chassis, girl operatives were "more sensitive and accurate than men" and caused fewer accidents. And "in the chassis department there is one girl who operates two cranes simultaneously."⁴ The writer has seen these girls in action and was impressed by the accuracy and responsibility required in these jobs. Women are also employed at the dangerous Briggs body plants doing relatively heavy and hazardous work. Even on thirty-ton punch presses, operating on pieces weighing over a hundred pounds, only two girls will be used. At Fisher Body plants girls do not only rubbing and polishing but even the heavier sanding jobs.

Lower Wages for Women

The automobile industry is no exception to the general rule that women's wages run lower than men's. Why this is

⁴ *Wall Street Journal*, Nov. 22, 1926.

so there is no room to discuss in this book. The arguments or theories that women can live on less, that they do not undertake economic responsibilities like men, and are in the industry for "pin money" only, that they have no skill compared with men, and that their term of industrial service is relatively brief, have all been long since proved fallacious.⁵ But no matter what the popular fictions about women in industry, the fact remains that their earnings run less. There are, of course, laws in the state of Michigan, for example, making it unlawful for employers "to discriminate in any way in the payment of wages as between sex or to pay any female engaged in the manufacture or production of any article of like value, workmanship and production a less wage, by time or piece work, than is being paid to males similarly employed in such manufacture, production or in any employment formerly performed by males." But as we shall see this law is violated by the corporations.

Wages of women in automobile plants, as compared with those of men, are given in a study made by the United States Bureau of Labor Statistics. It found that in 1925 the average earnings of females was 46.7 cents per hour ⁶ as compared with 72.9 cents per hour for men. And "the earnings of females in 1922 ranged from 35.2 for inspectors to 68 cents per hour for 'other skilled occupations'; and in 1925 ranged from 36.1 cents per hour for inspectors to 69.6 cents per hour for lathe operators."

A comparison of average wages received by males and females in specific operations is also included in this study. The figures for 1925 for the state of Michigan, for example,

⁵ Theresa Wolfson, *The Woman Worker and the Trade Unions*, pp. 43-48, and the various publications of the Women's Bureau of the United States Department of Labor.

⁶ A special study of "Women Workers in Flint, Michigan," made by the Women's Bureau of the U. S. Dept. of Labor in 1925, found the median earnings for a week of 50 hours for those engaged in plants manufacturing automobiles and auto accessories to be \$20.10.

show a great contrast in the average earnings per hour of men and women on certain operations:

Average Earnings per Hour

	<i>Male</i>	<i>Female</i>
Drill press operators	\$.743	\$.604
Inspectors711	.364
Sewing machine operators715	.471
Top builders807	.473
Trim bench hands752	.484 ⁷

Reports of the Department of Labor and Industry of Michigan for the fiscal year 1925-1926, show that the average daily wage of "skilled" female workers in the automobile and allied industries of that state was \$4.17 as compared with \$7.03 for males. For "unskilled" females it was \$3.50 as compared with \$5.77 for male workers of the same category.

Recent reports of specific instances in particular factories are even more illustrative of this "undercutting." A Packard worker reports that women will do the same work as men for a little over half the regular wages paid to men. For example, if the regular rate is 60 to 65 cents an hour the women will do it for 35 to 40 cents. Even in the machine shops women are running milling machines formerly operated by men and receiving about half the men's wages.

A laid-off worker from a Ford plant reports that while, during the summer of 1927, he was looking in vain for a job, his wife landed one running a drill press for 30 cents an hour, just one-half what he had received for the same work. "She could do the work as well as I could," he commented, "so the firm hired her because she was cheaper. If she had refused some other woman would have taken it."

Men who trimmed doors at a Murray Body plant were discharged in 1927. Girls were put in their places who made scarcely one-half their wages, or about 30 cents an hour.

⁷ *Handbook of Labor Statistics, 1924-1926, pp. 769-771.*

A woman in a Buick plant, writes in February, 1928, that "girls and married women are working in the A. C. Spark Plug, and Buick plants for 25 and 30 cents an hour, many of them trying to support families on that, not one-half what the men were getting who formerly held these jobs. We are doing a man's work and we should get a man's pay."

Women and girls are employed in Hudson departments where the temperature is exceedingly high, the gas fumes dense and health dangers numerous. Where there is legislation specially applicable to women the company may be prevented from employing them on certain jobs. As a forelady in a large Detroit plant related to a friend of hers: "We have men on several machines where we could get women to do the work cheaper. But if we put women on these machines we would have to install a lot of expensive apparatus to carry off the dust. So we decided, since the men did the job without bothering about the dust, to let them stay on the jobs." Of course the laws restricting the hours of females, as in the state of Michigan, to 10 hours a day and to 54 hours a week, have been violated. In some instances the women have been ordered to "punch the clock" at the legal maximum hours, after which they returned to their jobs and put in another hour or two which is not recorded on the regular time card inspected by the state authorities.

Because of the handicaps under which women work they have at times become even more conscious of their grievances than the men. They were once—in 1919-20—quite active in the shop units of the Auto Workers' Union in Detroit, Grand Rapids and other cities. They have taken a vital part in such strikes as that of the General Motors workers at the Oshawa, Canada, plant in 1928. Here as in the New Bedford, Passaic and other recent American strikes the women were in the vanguard of the battle and usually leading the picket lines.

CHAPTER V

MAN, MACHINE AND SPEED

MUCH has been written in recent years about the "speed-up" in various industries. One writer has defined "speeding up" as "the attempt, by offering incentives of one kind or another . . . to induce operatives to expend more than the greatest reasonable amount of energy in a given time."¹ In letters to labor papers hundreds of workers have complained of the increased speed at which they have been compelled to operate their machines or to perform their particular set of motions along a conveyor line. They have pointed to the larger number of pieces they are turning out and contrasted this with either decreasing, stationary, or relatively slowly increasing wages. This general tendency has been noticeable in a number of industries such as steel, textiles, packing, electrical goods, and the like, but more especially, and more spectacularly, in automotive plants. For it is here that minute specialization of labor, standardization of product, the conveyor system, mass and straight-line production have made possible a form of speeding that could scarcely have been dreamed of a few years ago.

Speed-up is caused by the rationalization of production that is taking place in the basic industries of all the competing capitalist countries. The trade war between the major imperialist powers calls for greater output, cheaper production, lower labor costs. The stockholders cry for greater profits. Competition sharpens between the producing companies at home and abroad. Speed-up is the result.

¹ H. D. Harrison, *Industrial Psychology and the Production of Wealth*.

The present keen competition between the companies, reflected in the many new models flooding the market, tends to greater and greater speeding up of workers and more intense exploitation. The execution of special orders and the bringing out of new models to bid for sales against another company's models invariably entail a period of rushing and spurting in the plants. The more immediate causes of speed-up may be new methods of payment of piece work whereby a greater output must be obtained by the individual worker, or the gang, in order to maintain earnings at previous levels.² Or it may simply be the attempt of a driving foreman to keep up with the production ordered for his department no matter what the cost to the workers in fatigue or overtime work. The foreman or straw-boss receives his orders from above which read, "Get out production or get out yourself."

It may help to a better understanding of the industry to review, at this point, some typical changes in machine processes which have come about in recent years—changes which have displaced labor, created "technological unemployment," increased production and lowered its cost, intensified and specialized the task of the worker, developed more severe supervision of the job, multiplied industrial accidents, and placed the automobile industry ahead of all industries in its efficiency engineering and general rationalization.

Labor-Saving Machinery

Some of the outstanding metallurgical and mechanical inventions and labor-saving devices in the automotive industry are described by M. W. La Feve of the United States Bureau of Labor Statistics.³ Some of the results of these may be summarized by way of illustration:

² The effects of wage payment systems on speed-up are discussed at greater length on page 130.

³ *Monthly Labor Review*, October 1924, p. 735.

1. A new forging machine developed by a certain company has doubled the production per man.
2. A machine for manufacturing pressed steel frames, operated by one man, produces six frames per minute, or 3,600 in 10 hours. To accomplish this production by hand methods would require 175 men.
3. One man, operating a spot welding machine, can do the work of eight hand riveters previously employed for the job, and he makes a joint that is much more secure.
4. One man some years ago finished soldering two radiators in one hour. To-day he can do at least 40 per hour, thanks to improved methods.
5. In a typical establishment a man under the old methods could grind 21 cylinder blocks of four cylinders each in a day of 9 hours each. After the installation of a new cylinder honing machine one man could do 170 blocks per day of 9 hours.
6. When the horizontal turret lathe was introduced for the making of fly wheels, the production per man was doubled.
7. Installation in one factory of a special machine designed for balancing fly wheels resulted in the reduction of the time required per wheel from 20 minutes to an average of 2 minutes.
8. Under the old method of casting pistons skilled molders were required; under the new die-cast machine for the casting of gray iron only laborers are required, the new machine producing an average of 900 moldings per man in 8 hours. Under the old method a skilled molder and his helper could average only 200 during the same period.
9. Rear quarter body panels can now be welded together electrically by an unskilled man at the rate of 60 welds per man per hour. A skilled man previously, using the torch method, did only 12 in the same period.
10. An automatic enameling machine usually requires but 30 per cent as much labor as would be required by hand dipping for the same production.

In addition to these typical, generally applied improvements and inventions we find that in particular plants certain technical improvements have been made. A few examples: At Hudson plants a new milling machine enables one man to displace 5; a new lathe for machining crank-shaft bearings

displaces 6 engine lathes operated by 6 workers. At the Lincoln plant one man on a certain operation formerly machined 100 pieces. Now he does 300 while his wages remain the same. In the Briggs plant a certain pair of departments formerly turned out 4,000 doors with 225 men. By 1926 production was increased to 7,000 but only 195 men were employed and wages had dropped. The Graham-Paige company formerly had 18 bore grinders attended by 18 men; now a single honing machine, operated by one man, does the same work. Similar changes have been made in other plants and in practically all departments.

Along the Belt

Most of the inventions and improvements just cited have been in departments where basic automobile parts are fabricated. But no real understanding of the plants is possible until one is familiar with the assembly lines, not only the line which puts together the finished car but those which assemble the component standardized parts such as motors, crank cases, ventilators, radiators, axles, carburetors and even seat backs and cushions. In the larger plants, after these sub-assembly lines have built up the different parts, conveyor systems carry them to points along the final line. A brief description of the final assembly line at the Flint Chevrolet plant, which appeared in the *New York Times*, presents a picture characteristic of other cars now built by large-scale production methods:

The car begins to come to life on this line. It begins as part of a chassis placed on a moving platform, or belt. It is scarcely more than a frame, just a few pieces of iron held together by the necessary bolts. The belt moves and the frame with it. Workmen stand on each side of the line. As the frame comes by a man slips a wheel on the axle nearest him. The next man tightens the bolts that hold it. Some one puts in the steering post, some one else attaches the fenders, and so on down the line, each man doing the same thing to each car as

it passes. Near the end of the line the body is lowered from above. It is fitted and bolted in place and the car, now looking like an automobile, moves on. A man with a hose puts a gallon of gas in the tank, another jumps into the driver's seat, and the car runs off the line under its own power, ready to take the road. In less than an hour from the time a chassis frame starts at one end of the line it comes off a complete car at the other.

The rapidity of such an assembly line, as well as of the various sub-assembly lines, has been increased as better co-ordination has been attained and better methods devised for bringing the parts—many of them by overhead chains—to the final line. Other cars take longer to assemble on this line—and some less—than the Chevrolet. The Hudson goes through in about an hour and a half, the belt moving about 13 feet a minute, which is 10 feet a minute faster than it moved 10 years ago. The tendency is to run the line just as fast as the human machines beside it can be made to keep up with it and complete their operations.

The hundreds of different special assembly jobs cannot be described here. Some require one or two simple movements, others require several or more complicated ones. One man may put on a few bolts and drive them tightly "home" with an air driver. Another may operate a power hoist lifting the motor deftly and dropping it on the moving chassis. Another may attach the steering wheel, a running board or a mudguard. Men may operate singly or in twos or threes. They are usually bunched up very closely along the lines. A Chrysler worker assigned to brake-drum assembly describes his operations as follows:

Two of us work together. After the axle with semi-fastened brake drums is received by us, we put a nut in the grease cup, put the axle in a double slot holder and then with a compressed-air machine tighten the six bolts, he on his side, I on mine. Then grease is applied to an exposed bolt to prevent it from being stuck during the "baking" process. After this a washer holder, felt washer, steel washer and cap washer are respectively put on

and hammered tightly into place. The work requires speed and accuracy and also harmonious effect on both ends of the axle. One-tenth of a second being enough perceptibly to put one of us in the lead, it means spurting now and then or waiting if the other one gets stuck with a bad nut.

It can be seen from these descriptions that one of the characteristics of this modern man-driving is that it can often be achieved with fewer supervisors and bosses than in former days. Merely touch a button and the conveyor is accelerated. The constantly moving belt sets the pace and does the driving. No man can be lazy even if he wants to be. Workers in certain Dodge departments, for example, complain that the line moves so fast they can't leave it for a second even to get a drink of water. If a worker does interrupt the process in any way he is committing the cardinal sin in the world of mass production—"holding up the line." That's when a foreman may be needed to supplement the moving apparatus and to give the worker a warning, a scolding or a "bawling out," telling him how many men there are outside who would like his job.

These high-pressure inspectors and work leaders ("straw-bosses," the workers call them) are very real figures in the modern automobile plant. Against them, and the foremen, the workers grumble often and vigorously, especially when the bosses are continually shouting: "Step on it," "Hop on it," "Come on, boys, you're slipping," "Get 'em out," "Speed 'em up," these and a hundred other variations of the incessant speed-up theme.

One careful investigator reports that "in 1919 in the motor assembly room on certain conveyor lines the unfinished motors moved by a given point at the rate of 40 an hour; by 1925 they were moving at the rate of 60 an hour. On other lines in 1919 the rate of speed was 120 an hour; in 1925 . . . it had been increased to 180 an hour." As a result of this speeding the Ford plants were in 1925 turning

out 31,200 cars a week *with the same machinery* with which they had manufactured only 25,000 cars a week in 1920. The increased output was the direct result of speeding the lines.

Speed-up Samples

Let us note, as a supplement to the basic inventions and labor-saving improvements already mentioned, some specific examples of greatly increased production along the assembly lines, caused partly by better technical processes and the elimination of waste motion and partly by the hurrying up of the "human element."

At the Hudson plants some 20 men formerly painted 275 chassis a day. At present 18 men, with new spray painting machines, do 1,200. In the same plant new bolt drivers enable the same number of men to tighten all the body bolts on 1,200 cars a day as formerly tightened bolts on 300 a day. New tools for attaching springs, axles and brake shafts have reduced the force required on this operation from 12 to 8; while in the assembling of fenders 6 men and 14 women now do more than under the old system with 28 men and 8 truckers.

A still more significant man-displacing device is the one perfected by the Packard company. This is a striping machine used to paint the stripes on bodies. The *Detroit Free Press*, announcing this invention on August 26, 1928, shows a girl using one of them. The caption reads: "Speedy. . . . She can paint stripes faster than could half a score of men wielding brushes."

In a Fisher Body plant in the department where bodies are dressed, 6 men are now doing the work that formerly required 25 to 30 workers. This is due to a change from hand dressing to motor dressing machines. And in the same plant 9 gluers do 1,000 roof rails a day whereas previously it took 16 workers to do 1,200. In Fisher Body Plant No. 21 the workers, in August, 1927, were turning out 235 bodies a

day with the same number of workers that formerly produced only 150.

We need not dwell at length upon what this acceleration of the movement of the assembly chain means to the workers. Summing up his observations of the conveyor system in the American automobile and other industries, Dr. Arthur Feiler, editor of the *Frankfurter Zeitung*, in his recent book, *America Seen Through German Eyes*, says in part:

The conveyor started as a simple means of carrying articles, but became a tyrant dominating the workers. When the conveyor is speeded up the workers are forced to follow its dictates, and to hurry with their jobs accordingly. The conveyor's speed invariably determines the worker's speed. . . . The conveyor is the master. If the management in a factory decides to increase its speed by ten per cent . . . tens of thousands of hands . . . must work ten per cent faster. The workers are bound to the conveyor the way the galley slaves were bound to the vessel.

Dr. Feiler found that " . . . the system exploits human labor unmercifully and sometimes the strain is almost unbearable. . . . Competition among unorganized employees makes it possible for the employer to exploit their competitive effort." This is a fair description of the situation in General Motors, in Chrysler, in Ford and in all the other plants.

More Work for the Same Pay

As we shall see when we discuss wages, the increased production required under the speed-up system does not usually result in an increase even of nominal wages. Men may be compelled to work faster to maintain their earnings at a given standard in case their piece rates are reduced. Examples are at hand from almost every plant. The workers on the motor block line in a Hudson-Essex department were reported in 1928 to be turning out 800 pieces for the same wages they received when doing 500 to 600 pieces. And

A. J. Steiger of the University of Chicago, who worked a summer in a Detroit plant, says: "I have seen men who made more than the required 340 pieces per hour have their schedule increased to 400 pieces per hour without any increase in wages. I have seen other men put out on the street because they couldn't make the pace in so rigid a régime."⁴

Other methods of piling on work will have the same effect as a speeding up of the line. For example, in a Chevrolet plant, in 1927, a worker reports that "recently in a department of 24 men 10 were laid off. The slowdown lasted only a week, but although the work picked up the laid-off men were not called back and now the 14 men are doing the work formerly done by the 24." In April, 1928, Dodge was also reported to be giving workers double tasks without increasing wages, while workers in the "Duco" department were spraying on 2 coats of lacquer instead of one and getting the same price as for one coat. And in a certain Buick plant in the summer of 1928, some 200 men were laid off, shutting down a whole line. But all the work done by that line was divided up among the other lines in the department, resulting in a 30% increase in work for the same pay. Such methods inevitably make workers "step along" faster to handle the increased work.

"Incentives"

It must not be thought that all speed-up is produced by howling foremen and accelerating conveyors. More appealing methods are used, some of which we shall mention in discussing wage payment plans. At this point we may refer to a few schemes that fall outside the category of wage payment plans. One is the practice of putting a notice in the company paper (employee magazine) citing the case of a worker who has done specially productive work. It may be accompanied by a picture of the worker

⁴ *Nation*, May 2, 1928.

or his family. Here, for example, is a picture in the *Cadillac Craftsman* showing A. Dalglish (M-47-14) turning out wrist pin bushings on his machine. The accompanying blurb reads:

Up and down go the tiny drills on the L. and G. presses in the Brass Machine Department (M-47). In the picture below, the operator, A. Dalglish, better known as "Scotty," is drilling holes in wrist pin bushings. . . . An average of 2,000 wrist pin bushings are made ready daily. . . . Department M-47 is under the supervision of A. Rowan (foreman) whose assistant is J. R. Deyo. Both men hold long service records at Cadillac.

Hundreds of such items appear yearly in the Cadillac employee magazine as well as in the factory organs of the other companies, all calculated to spur on the workers to greater speed.

A still more stimulating incentive is the bulletin board method of publicly recognizing the output records of workers, gangs and departments. This also incites inter-departmental and inter-gang competition, a game from which the company profits greatly.

All such schemes—and there are infinite varieties of them—might be termed the painless methods of speeding up. The well-paid personnel experts employed by the motor companies are specialists in this type of speeding. It is also customary for them to call to the attention of the worker the fact that by working hard and fast, on a piece work basis, he can "clean up" comparatively good wages in a busy season. As the worker fears the lay-off and wants to put aside something for those rainy days, it is only natural that he should seize the bait and work his head off to earn a little more during the rush season. Helpless and unorganized he does not realize that speed-up and the rush season are but the forerunners of the lay-off and short-time employment.

The Ford Race Tracks

"In some of the Ford shops I witnessed terrible exploitation of human beings by the conveyor system," wrote Dr. Feiler. He had watched the Ford speed-up in action.

The reduction of piece work rates is, of course, not the speed-up method in Ford plants, for time rates prevail here.⁵ It is rather driving foremen and the inexorable speed of the machines and conveyors, timed to extract the last possible ounce of energy from the workers, that accomplishes the same results for Ford. Most Detroit workers will tell you that they do more and harder work in the Ford plants in 8 hours than in many other plants in 9 to 11 hours, and personnel officials in other plants have declared that they don't hire ex-Ford workers if they can help it, for if the men have worked from five to eight years at Ford's they are about played out and hence do not make the best workmen.

The Ford pace grows continually more exacting, as a few examples taken at random from the reports of workers will indicate:

In Dept. 727 a man used to make 26 pieces of T-733 in 8 hours; after greater speed was turned on the belt the same man does 78 in the same period. And in one of the buildings where the jigs for crank shafts are turned out, five men formerly did 300 jigs. Two of the men were dropped from the payroll during the lay-off of 1927, and the three remaining were speeded up until in March, 1928, they turned out 500. Then the boss told them to make a higher record to pay for not being laid off. The threat of the

⁵ Feiler asked a Ford engineer how they were able to get along without piece work. "Well," he answered, with a significant smile, "we have found a system which is so stimulating to labor that we do not need piece work. We have introduced piece work paid on the hourly basis, as it were. You will understand what this is when you have gone through the plant." "And I did understand it after I had seen the conveyor system," Feiler adds. (Feiler, *op. cit.*, p. 139.)

lay-off is the favorite weapon in the hands of the hustling boss.

In the making of coil boxes, reports in 1926 showed that within a brief period the number had gone up from 4,500 to 7,700 a day, while the number of covers had increased from 7,000 to 8,700 a day without an increase in the labor force. And in the piston department of the Fordson plant 30 men were doing what 60 to 65 men had done before. About the same time in the motor assembly department the number of lines was reduced while production increased. And in the soldering department production in 1926 was 35 pieces per man-hour; a year later it was 80 per man-hour. It was reported from the radiator department in June, 1927, that the soldering gangs were cut from 50 to 25, but that the number of radiators soldered increased from 50 to 80 pieces per hour. In another department during the same year some 27 men were handling 2,100 parts while a few months before it had taken a crew of 76 men to get out the same production. In other words 49 men had been thrown out of jobs in this department alone, yet the formen were still shouting, "If you don't speed 'er up, I'll send you down for your time."

The "Modern Dance"

The Ford school of industrial managers always tries to minimize the monotony of the repetitive, subdivided, specialized jobs. Ford himself in a lyrical moment has said that there is "no work so rude that he (the worker) may not exalt it; no work so impassive that he may not breathe a soul into it; no work so dull that he may not enliven it." ⁶ He contends that "belt" work in his assembly buildings can be easily endowed with a soul and exaltation. And he makes much of the fact that his men do not resent the monotonous tasks, in fact they have even objected when the company

⁶ Quoted in the *Studebaker Accelerator*, June 13, 1928.

made arrangements to have them shift jobs every three months.

That most of the men do not consciously resist the monotony can be partly accounted for by the fact that they are either intimidated from protesting or are too stupefied by the job to realize its injurious effects upon their creative powers. Furthermore, the offer of a change to a new job every few months would certainly not solve their problem. For is it not removal to just another dull and monotonous job no more inspiring than the last one? Why change to another job, ask the men, if it means no more employment of the brain or the inventive faculties?

Yet there are those admirers of Ford and his methods who, like Charles W. Wood, write that "the assembly line which I watched seemed more like a modern dance."⁷ Professional journalists and sycophants of the powerful American capitalists are accustomed to write in this vein. In contrast to these apologists for Ford speed-up we may quote from a young worker whose father has been worn out by the terrific pace along the assembly line, and who himself has been driven by foremen in Detroit plants. He is describing the Ford-Wood "modern dance":

The men work like fiends, the sweat running down their cheeks, their jaws set and eyes on fire. Nothing in the world exists for them except the line of chassis bearing down on them relentlessly. They come along on a conveyor, and as each passes the worker has to finish his particular job before the next one bears down upon him. The line moves fast and the chassis are close together. The men move like lightning. Some are underneath on their backs on little carts propelling themselves by their heels all day long, fixing something underneath the chassis as they move along. . . .

This is Ford speed-up stripped of the poetic embellishments of the business magazine interviewer. What the

⁷ *Forbes*, Jan. 1, 1928.

deadening effect of such a pace must be on the brains and bodies of workers, experts in psychology will some day tell us. But only when these workers have achieved a union will they be able to begin to protect themselves from the ravages of the speed-up.

The result of speed-up, as we have shown, is to intensify the exploitation of the workers. This is inevitable under a capitalist system of production. In the Soviet Union, where the increased production of the plants is socially utilized, this speed-up is unknown. The workers there do not oppose the increasing of production. For they see that this leads to improvement in the welfare of all, and not the concentration of profits in the hands of an owning class. On the other hand, under the rule of the Fords, the American workers must fight the speed-up and the whole system of capitalist rationalization which gives rise to it.

CHAPTER VI

HOURS OF WORK

WITH the exception of the Ford plants, to which we shall give special attention below, the majority of the workers in the automobile industry are now working about a 50-hour week. The survey of the industry made by the U. S. Bureau of Labor Statistics in 1925 gave a general picture of the situation for some 99 factories. For the whole group investigated, covering some 144,000 wage earners, the average full-time weekly hours of work for men in the industry increased slightly from 1922 to 1925, from 50.1 hours to 50.3 hours per week. For women there was a slight decrease during the same period, from 50.3 to 50.1 hours.¹

According to this study, 48% of the workers covered were on a 50-hour week basis. Slightly over 27% worked between 48 and 50 hours per week; 18% work between 50 and 55 hours, and 4% over 55 hours. The length of the working day naturally varies with the length of the work week, and ranges from 8 to 11 hours, while Saturday work, according to this study, ranges from 4 to 8 and 9 hours. All establishments, excepting Ford's, and, for a time, Hudson's, have the basic week of 6 days. They usually operate on a day shift of about 9 hours for five-and-a-half days. The night shift is usually 11 hours for 5 nights, though some plants run 12 hours at night for 5 nights, making 60 hours a week.

Completely unorganized, the auto workers are now compelled to put up with whatever hours are set for them by

¹ U. S. Bureau of Labor Statistics, Bul. 438, *Wages and Hours of Labor in the Motor Vehicle Industry*, 1925.

the employers. And in this respect they have fared even worse than the workers in the non-union steel industry where the long 12-hour day has largely given way in recent years to the 48-hour week. Compared with workers in organized trades the auto workers are much worse off. Already in 1926 in the organized industries of this country 91% of the union members were working 48 hours or under per week. Indeed, 80% of them were working 44 hours or less.² And in 1928 more than 165,000 members of organized labor had won the 40-hour week—the 8-hour day and the 5-day week. As we have seen, none of the automobile companies, with the exception of Ford, have 48 hours or less, except when the workers are working short-time, which means reduction in their regular earnings.

Overtime

While there has been, as we shall see, considerable unemployment and slack time during certain recent years, we find also a great deal of overtime work or extra hours beyond the normal working period. Indeed, overtime schedules seem to be taken for granted as a natural condition in the industry. A personnel expert, in discussing auto workers' wages, says: "The amount of your total earnings depends entirely on the overtime put in." As a study of the Bureau of Labor Statistics puts it: "in most automobile plants [overtime] is expected at certain seasons of the year. In 1925 a few plants, on account of heavy orders, were operated overtime almost every week in the year."³

Overtime examples could be given from almost every plant. In March, 1927, they were working 11.5 hours in Dept. 17 of the Dodge plant, while other departments at Dodge were working as high as 13 and 14 hours; some de-

² U. S. Bureau of Labor Statistics, *Union Scale of Wages and Hours of Labor*, May 15, 1926.

³ *Handbook of Labor Statistics*, 1924-1926, p. 772.

partments in the Hudson plant have worked 11 and 12 hours; the Briggs body workers have done from 10 to 14 hours a day; Chevrolet has required 11 in some departments; Packard, 11 and over; and practically all the other plants during the busiest seasons have raised the length of the working day, of course without any consultation with the workers. We read, for instance, in the *Michigan Manufacturing and Financial Record* (June 2, 1928) that at the Olds Motor Plant at Lansing "virtually every man is putting in overtime, the average working day at the factories being between 11½ and 12½ hours."

Sunday and holiday work is also common during the rush periods and men report working 7 days a week and 10 hours a day.

Concerning the payments for overtime the study of the Bureau of Labor Statistics informs us:

The straight or regular rate for all overtime was paid by 41 of the 99 plants covered in 1925. An increase over the straight rates was paid to all workers by 38 plants.⁴

In the remaining 20 plants reporting, various methods were used in a limited number of departments, but in none of them were all the employees compensated extra for overtime work.

Many examples of straight time pay for overtime could be given. Thus we find the machinists at Chrysler's, during certain periods, are on their jobs 12 hours a day and 7 days a week, receiving only straight time. The same is true of Buick and Nash employees. And Dodge workers have labored all Saturday and Sunday at straight rates; Ford workers likewise, in special departments and at certain periods. Such conditions would be unthinkable in a union shop. A Briggs worker complains, "We must often work 12 and 14 hours a day with no extra for overtime. The same for

⁴ *Handbook of Labor Statistics, 1924-1926*, p. 772.

Sundays and holidays. I had to work this Sunday and also on the Fourth of July, both for straight time." Metal finishers at this plant, the *Auto Workers' News* of June, 1928, informs us, upon being hired, were lectured by the general foreman who told them "they were expected to work as much overtime as the company wanted, Saturday afternoons and Sundays included, at straight time rates. Those who didn't like it could quit." The same general foreman also called the foremen together and told them that if any man "declined to work overtime he was to be sent home without any question. There were plenty of men outside anxious to go to work."

In such cases the workers may grumble, but they are powerless to do anything. What they earn, even though it be only at straight time rates, helps to make up for the wage losses during periods of lay-off and unemployment. Should these workers refuse to do the company's bidding they would be fired and replaced by a more "loyal" body of men.

Even worse than this failure to pay time and a half overtime rates in a majority of the plants goes another practice that robs the workers in another way. This is to secure occasional bits of extra work from the workers without any payments whatever, not even the regular rates. For instance, a Dodge plant worker reports:

It used to be that if we worked 15 or 20 minutes past the whistle in the afternoon to finish a job we got paid for it. No more! Sometimes we work even half an hour and receive no pay for it.

And the same seems to be the fate of the office workers in this plant, according to this informant:

When the boss comes around and says, "Well, girls, guess you'll have to stay tonight till all this work gets out," they stay, and get no pay for it.

Then from the Chrysler plant a worker writes:

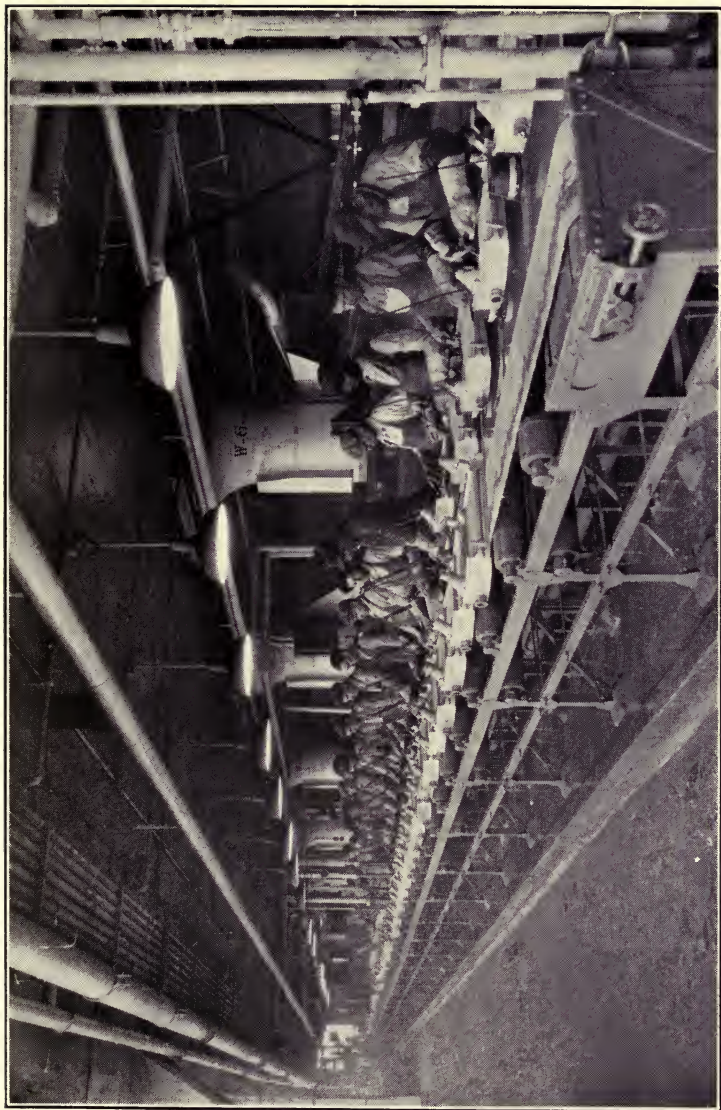
Much to my dismay I learned today that the fifteen minutes of overtime we put in were given gratis. The whole line worked overtime without getting paid for it.

Likewise a friend employed in a Fisher body plant reports that on a number of occasions such an incident as this would occur. He would report to work at 7 A.M. Some hitch would prevent the production line's starting till 9. Then at 4:30 P.M. the foreman would tell them they would have to work two hours overtime, and without any extra pay. Besides, they were not paid for the time they stood idle in the morning.

The Ford Five-Day Week

Henry Ford gained first page headlines when he announced in July, 1926, that his plants would thereafter operate on a five-day week basis. It was understood, and widely announced in the press, that this would mean no wage reduction. The American Federation of Labor leaders and the public generally applauded this move. Some business men considered it unwise. Some approved.

We may ask, What were the considerations moving Ford to issue this edict? In the first place it must be remembered that the market for Ford cars had seriously slumped. General Motors was pressing close. The demand for Model T's was steadily decreasing, and a lay-off was in order. The Ford idea of meeting this situation was to cut off the extra half day, secure the publicity advantages, and at the same time save that much expenditure for plant maintenance, overhead and wages. So the move was really a wage cut. Some months later, pressed by inquirers, Ford admitted that he had never contemplated that the workers should earn as much in the five-day week as they had in six days unless they turned out the same production. His answer to Carroll Binder, New York *World* correspondent, on November 7, 1926, was:



FORD RADIATOR CONVEYOR

I never said that I would pay six days' wages for five days' work and I never will do such an uneconomic and impossible thing. I said that we would pay six days' pay for six days' work done in five days. . . . But the men must earn the money first.

But Ford had declared earlier through his mouthpiece, Samuel Crowther, that "the men, according to merit, will receive the same pay equivalent as for a full six-day week." And the *World's Work*⁵ headed this interview: "The automobile manufacturer in this authorized interview tells Mr. Crowther why he reduced the working week in Ford plants all over the world to forty hours *with no cut in pay.*" [Our italics.—R. W. D.]

It is true that Ford gave 5 cents an hour raises to a part of his workers. But the net result was a decrease of at least \$4 a week from what they had been earning on the six-day plan. As the *Christian Century* described the situation on November 4, 1926:

The sober fact is that Mr. Ford has taken \$6 out of the weekly pay envelope of the large majority of his workers. A small percentage of these thousands have been granted an increase of 40 cents a day. They therefore lose only \$4 a week instead of \$6. In other words, during the past year—for the five-day week [and less.—R. W. D.] was in effect in the Ford plants long before the public announcement—the average Ford man has lost between \$200 to \$300 through the Ford method of higher and higher speed. In the great River Rouge plant near Detroit it is hardly possible to find a man who has received the 40 cents increase. At the Highland Park plant a small percentage can boast the possession of this boon. . . . The Ford speed, already phenomenally high for years, was accelerated to such a degree in the last year that every worker did himself out of a day's work per week.

A statement in the *Wall Street Journal*, shortly after the hour reduction, may have reflected a part of Ford's motive:

⁵ *World's Work*, October, 1926, and *Detroit Times*, September 26, 1926.

"He has cut down his labor costs and has warded off the unionization of his men in one fell swoop. . . . He has sprung a coup on the labor unions."

Up to date the wages previously received by the Ford workers have not been achieved under the five-day system even though they are now turning out six days' work in five. Indeed, many of these workers after the long Ford lay-off of 1926-27 were hired back at the old starting scale for adults of \$5 a day. For that matter, it should also be noted that the five-day week, after its introduction, was really no five-day week at all but a four-, three- and two-day week, as it had been for months before the five-day announcement was made. After the five-day week was instituted, Ford production slumped lower and lower, for it was then that the great lay-off came preparatory to the introduction of the new model. (See page 106.)

After interviewing Ford, Carroll Binder wrote that the automobile Crœsus informed him that, "the five-day week is a cold business proposition with not the slightest pretense of philanthropy." Yet the impression is still vaguely current in this country and throughout the world that the magnanimous business idealist, Henry Ford, performed another generous act for his workers when he cut their wages down from \$36 to \$30 and \$32 a week, and speeded up still more their tasks on the production lines.

More recently (January, 1929), crowded for greater production, Ford shifted back to the 6-day week in his plants, while maintaining the 5-day week, and the 5-day wage, for the workers. For two-thirds of the workers, however, this meant the end of the 48-hour week-end holiday. Ford once dwelt at length on the value of the full 2-day rest period for his speeded workers. But the sharp competitive struggle has forced him to revise his practice.

For the benefit of those who still feel that, no matter what the wages, the 8-hour day at Ford's must leave plenty

of time for the Ford workers to "mispend their leisure" and "get into mischief," we append the schedule of a regular day's work in the Fordson plant. It was prepared by a student who worked there several months. The schedule is for a worker on the 7:00 to 3:20 shift:

- 5:00 Alarm clock.
- 5:35 Has finished breakfast.
- 5:40 On a street car.
- 6:45 Rings clock card, then goes to his job, gets tools and is standing in line when the gong is sounded.
- 7:00 Starts work.
- 11:00 Lunch; if on company's time, it is 15 minutes; if he is working on a two-shift system it is on his own time and 20 minutes.
- 11:20 Standing in line again.
- 3:20 The day's work is ended. Our man hastens out, tired, dirty, sleepy.
- 3:25 Rings out. (This allows only 5 minutes; it may be more.)
- 3:30 He is on a street car.
- 4:35 He enters his home.
- 5:15 He has finished his bath and is ready to use his spare time but he has a painful memory. He is tired and must get up at 5 A.M. the next morning.

Many workers live far from the plant. Those especially have to do this who try to conform to the much-advertised American standard of owning their own home. Because of this it is fair to say that this Ford worker actually spends $9\frac{1}{2}$ to 10 hours a day in connection with his job. For in addition to coming from a distance, he must reach the plant in plenty of time to get his tools and stand ready for the line to start. Thus he may get to the plant anywhere from 5 to 30 minutes before the starting gong sounds. After work he must return his tools to the crib, punch the clock and, where there are facilities, wash up before he leaves the plant.

The worker on the night shift has an even more difficult

schedule. Night work, as we have noted, is common in all the plants; there are records of eleven and even twelve hours of it at Fisher Body, Chevrolet, Buick, Packard, Briggs, Hudson, Murray Body, Chrysler and other companies. At Ford's, under the three-shift system, with the shifts changing every fortnight, the worker finds himself on the night shift (often called the "graveyard shift" or the "divorce shift"), two weeks out of every six, with all the upset and irregularity it means in eating, sleeping hours and family arrangements. Even with only 8 hours on the production line, the worker has little time for anything except sleep and recovery for the next day's sweating.

But, as one Ford foreman put it to a new worker: "The longer you stay the better you'll like it—if it doesn't kill you or make a nervous wreck of you."

CHAPTER VII

JOBS

Employment and Production

AMERICAN industry generally has shown an extraordinary development since 1919. Although the population of the country has steadily increased, the number of workers needed to manufacture food, clothing and luxuries for this population has steadily decreased. The application of mass production methods and the consequent great increase in productivity of the workers has made it possible for an increasingly smaller number of them to make an increasingly larger amount of goods.

The increasing use of mechanical devices has displaced a great many workers. The speeding up of machinery and increased rationalization of industry have added to the total number out of work. New machinery has been developing more rapidly than new industries and large numbers of workers thrown out of their jobs have not been reemployed. In the winter of 1927-1928 conservative estimates of unemployment in the country reached 4,000,000. So-called "technological unemployment" made up a considerable proportion of this amount.

This tendency toward greater productivity with fewer workers is very marked in the automobile industry. Between 1923 and 1925 wage earners employed in the manufacture of finished motor vehicles (not including parts and accessories, bodies, etc.), according to the Census of Manufactures, declined from 241,356 to 197,728. And since 1925 the number in the industry has decreased again, the number

in 1927 being only 187,835 according to the most recent census. The number of plants (including assembly plants), as we have already noted, has also decreased from 351 in 1923 to 297 in 1925 and to 262 in 1927. But the output of the workers keeps rising. The number of cars produced per worker per year increased from 1.80 in 1904 to 20.08 in 1925. The increase in the average worker's productivity was over elevenfold, not considering the superior nature of the product turned out in later years.

Irregularity of Employment

Employment, of course, does not maintain the gains made in periods of high production. A slow-up in orders for cars means an immediate lay-off for the workers. These lay-offs, short-time periods, as well as seasonal unemployment, undermine the security of the worker and have a most serious effect upon annual earnings. For, as we shall see, even though the hourly wage rates may seem high, in comparison with those in other non-union industries, it is the yearly earnings that count with the workers.

The President of the Employers' Association of Detroit informed the Convention of the National Association of Manufacturers in 1926 that "nowhere is there less interruption to employment" than in Detroit. Perhaps he meant that labor, because of its lack of organized power, is less able to interrupt production through strikes. For he was deliberately misleading his audience if he meant to imply that the worker in a Detroit auto plant enjoys steadiness and security in his job. Indeed, since he made this address Detroit has gone through a period of unemployment more serious than any since the depression of 1920, and especially accentuated by the closing of the Ford plants which we shall discuss later.

But quite apart from the Ford closing, the workers in Detroit have in recent years experienced great irregularity

in employment. We may set down a few of the many reports of this situation expressed by the workers themselves during the last two years:

Murray Body: Some days the men in Dept. 23 work 12 hours, some days only 4 hours. The men never know when they will be sent home.

Hudson: Has gone on a four-day week basis.

Dodge: In Dept. 66 only the bosses and their friends are working. The other workers are sent home. In the same plant: several departments worked part time during January and February; 70 per cent were laid off in April, the others were working three and four days a week and only two to five hours a day.

Fisher Body: A big lay-off in Plant 18, some for two, some for three weeks. Of those who are on the job some work till noon; some only two days a week. [And at the height of the busy season in the spring of 1928]: Several thousand workers have been laid off in practically every plant of the Fisher Body Co. This is the third lay-off this year.

These are typical reports from workers in sample plants. A young worker in the Chrysler plant in Detroit gives a more detailed story of conditions there in the summer of 1927:

We came all set for work Wednesday A.M. and two minutes after we started we were informed that it was "all off" because they were short of bodies or of steering wheels. . . . Monday worked all day and Tuesday quit at three. Thursday came ready to work and were informed that we were off until Monday. Steering wheels and self-starters were wrong all along the line. Thus we get a five-day vacation although we did waste sleep and time and carfare getting to work Wednesday and Thursday with no result.

Again, he writes in his diary:

I find the workers' thoughts and conversations running to such

questions as how many cars are out, how long are we going to work today, will we work tomorrow?

And later:

The "50" line worked about $1\frac{1}{2}$ hours Monday, 3 hours Tuesday, 2 hours Wednesday, 4 hours Thursday, and then they were laid off until Monday. But they say this line will be running overtime as soon as the cars hit the market.

Undertime and unemployment for some weeks; then overtime, overstrain and overspeeding. Later he writes:

Our line stopped for about a half hour today because they were short of supplies. And the next day: Worked until 11:30, getting off then because of the lack of bodies, it is rumored.

It will be seen from the above illustrations that there is a great variety of fluctuations of employment in automobile and accessory plants. There is the lay-off for a few hours till parts arrive or because some of them are wrongly made. There is the longer lay-off of several days, as on the assembly lines when bodies or chassis are lacking and must be waited for. There are departmental shutdowns while other departments are speeded up. There are reductions in hours and in forces when the demand for production falls off. There are complete shutdowns of plant due to cyclical business influences, and involuntary "vacations" without pay.

The automobile industry has usually been very seasonal with the demand for cars liable to violent fluctuation. The peaks of production have come more often in the spring, occasionally in the fall. In recent years this seasonal movement has shown a tendency to be even more irregular. New models of cars are being introduced somewhat earlier in the year than formerly, and the peaks and drops in employment are therefore changing, and show no consistent seasonal influence. For example, the leading production month in 1925 was October, but March and April were leading months

in 1926, April and May in 1927, and May and August in 1928, with September, however, only a shade lower than May. This does not mean that production is being stabilized, but rather that the breaks in employment are coming at different periods than in former years. There is also a marked difference between the seasonal production trends of one company and another.

The element of style has, of course, had much to do with this. The style race in cars, and the more frequent changes in models in recent years, are an evidence of the increasing sales competition between companies, all of them now engaged in frantic efforts to make the American public more "style-conscious." A typical full-page advertisement of the Chandler car in 1928, for example, headlines its copy with the phrase "STYLED IN THE PEAK OF FASHION." The new Buick of 1929 and the new Chevrolet "6" emphasize style as the first quality in all their advertising copy; references to "dashing new bodies" and a "dazzling new type of motor car beauty, styled up-to-the-minute" have now become almost hackneyed. The ups and downs of company sales reflect the ability of the firm to make the "smart," the "chic," the "racy," the "snappy," the "distinctly different" car. As one writer in *Automotive Industries* puts it, the manufacturer must understand the "psychology of color," in the designing of bodies.

This effect of style on the fortunes of particular companies, together with the fact that new models come out at different times, leads to a situation where the workers may be working overtime in one plant and be slack in another. A Detroit worker writes in the summer of 1928 illustrating this point: "Just now we are working 64 hours a week at Packard's. Chrysler employment was down until a month ago but now it is running full. Certain plants were way down last spring while Hudson was open. Oak-

land in Pontiac is closed for a change in model while the Pontiac car plant is running."

This variation in the production schedules of different companies is accompanied by another feature that makes the gaining of a living more precarious for the workers. The practice is becoming common for the companies to hire men for a certain job. When the work on a new model has run out the worker's job ends with it. He has no claim on any other work that may have developed in the meantime. A new set of men may be taken on to handle another model. As Scott Nearing puts it: "This means that the hand-to-mouth, or day-to-day mode of operations has been extended from the raw material and finished stock department to the labor department. Iron, coal and parts are ordered as needed instead of piled up far in advance. The same with the output which is kept down to demand. And now the same with the labor supply. That *commodity* is bought in the quantities required, turned out when needed, turned off as soon as possible."

While workers may be laid off by dozens or scores and may be put on part-time schedules, they still have some hope that conditions will become steadier, as they frequently do for a time. But the worker who is dismissed in what might be called a "mass lay-off" is less inclined to hope and the effects upon his social and family life are much more marked. These mass lay-offs have happened in various plants at different times. By far the largest was the Ford lay-off of 1926-27.

The Ford Lay-off

The widest unemployment the industry has known since 1920 was caused by the closing down of the Ford plants when the great mass production machine was shifted from the old to the new model. After slow production and part-time work due to the falling off of sales of the old Model T.

during 1926, the shut-down was gradually effected until it was virtually complete in May, 1927. Only at the end of five months, while die and tool makers worked overtime setting up the new machinery, did hiring begin again and the production lines, using about 85% of the total force, begin moving.

The total number of workers laid off in the Ford and dependent parts and accessory plants in the vicinity of Detroit was at least 60,000, but tens of thousands of others, though not technically laid off, were on part time—two, three and four days a week—as the company attempted to stagger the load of unemployment. And this figure does not include the tens of thousands laid off in other cities in Ford assembly plants, and subsidiary industries supplying raw materials. The estimates of the total Detroit unemployment at the time ran as high as 100,000.

The economic and social results of this mass lay-off as it affected the City of Detroit are described by Paul U. Kellogg in the *Survey* of Feb. 1 and 15, 1928. He found among other things that at least \$9,000,000 in wages were lost to Ford workers, resulting in untold suffering and despair for them and their families, and bankruptcy for many of the small store keepers dependent on workers' purchases. Poor relief distributed by the Detroit Community Fund (an amalgamation of some 70 charity organizations) was more than a million dollars larger than that distributed in 1926. The Social Service Division of the city was forced to care for nearly 25,000 persons in March, 1927, compared with 5,500 in November, 1925, and unemployment was counted as directly responsible for at least 50% of the dependency reported. Families had to be housed and fed at public expense when credits had been stretched to the limit. (The Ford stores, incidentally, extended no credit for their groceries or household supplies.)

Free medical clinics doubled and trebled their number of patients.

Even before the peak of the lay-off, when thousands were working part-time, many were dependent on city relief. Workers lost the bungalows and lots they had been buying on the installment plan; sickness, death and general misery followed in the wake of the slump in production.

The utter heartlessness and impersonal character of the Ford autocracy has been commented on by many who have been in contact with it. As one Ford employee put it during the preliminary stages of the lay-off: "A man does not know what to expect. The company may keep him for 20 years or it may lay him off to-morrow. There will be no warnings, no explanations. If work is slack, or if for any reason it is no longer convenient to keep him, he is given his quit slip, faithful or efficient service notwithstanding." And as Reinhold Niebuhr reported at the time: "Of late men have been discharged in cases of sickness even when they were meticulously careful to report their disability."¹ Then there is always the suspense and uncertainty that goes where men have no union to keep them informed of conditions or policies. As one worker says, "We never knew until the night before whether there would be work the next day. The foreman would simply say, 'No work to-morrow, boys.'"

Ford himself was utterly indifferent to the terrible effects of the lay-off on the workers and their families. With unparalleled hypocrisy he said to Mr. Kellogg some months afterward: "I know it's done them a lot of good—everybody gets extravagant—to let them know that things are not going along too even always." And when the worst of the lay-off was over, but thousands of men were still

¹ R. Niebuhr, "Ford's Five-Day Week Shrinks," *Christian Century*, June 9, 1927. For concrete examples of what happens to automobile workers when unemployment hits them, see this article.

milling around fighting for jobs at the Ford employment offices, and at least 4,000,000 men were jobless throughout the country, Ford, arriving in England on a spring pleasure trip, had the impudence to declare, "If there is any unemployment [in the United States] it is simply because the unemployed do not want to work."² A few days before the *New York Times* correspondent in Detroit had written that the unemployment in that city constituted "an extremely serious problem." But it was no problem at all for the billionaire Ford who self-righteously asserts that the men who sell him their labor power need a little unemployment occasionally to keep them steady and thrifty.

Flooding the Labor Market

It might be considered extreme to insist that Ford takes genuine personal delight in mile-long lines of workless men outside his gates, but he certainly does nothing to broadcast correct information about employment to the farmhands and town boys throughout the country who look to Detroit as a sort of Eldorado where Ford always has a job waiting for them. Certain other companies have advertised for workers when they knew the labor supply was adequate. Workers in Hudson's particularly have charged this company with the practice. In January, 1927, it advertised all over the country for help. "The men coming from the South," reports a Hudson worker, "have been employed at much lower wages than those whose jobs they have taken."

But these men from outside the city do not always get hired. Often they come on a wild goose chase. For example, in February, 1928, when unemployment prevailed among General Motors workers in Flint, bus loads of almost penniless workers, bound from Missouri and the South, in answer to advertisements, were brought to the

² *New York Times*, April 7, 1928.

city. The men said they had read advertisements for help in farm and weekly papers exhorting them to "come to Flint and earn \$10 a day."³ In Toledo the Willys-Overland Company, according to a city councilman who protested, "is creating an army of out-of-works with the result that the city's poor relief bills are mounting higher and higher. I understand that the company keeps up its advertisements for help in the outside papers and uses employment agencies to keep gangs of men clamoring for work."⁴ The Briggs Company in Detroit is also to be condemned for its frequent advertisements both for skilled and unskilled labor. This abnormal situation, created by company "help wanted" advertisements, is accentuated by the fact that the daily press always gives plenty of space to news of hirings, and to statements of "increasing production," but almost none to the firings as they occur at the various plants.

The results of the lay-offs and the irregularity of employment are well known to those familiar with the industry. First, it increases the speed-up. For when the men have work, and if they are paid by the piece, the prospect of a future lay-off is likely to engender the idea that "they better get it while the gettin's good." They are thus ready to work almost any hours and plenty of overtime even at straight time rates. They are glad to "have anything at all," as one of them put it, and to do anything, no matter how slavish or humiliating, in order to keep their jobs.

Employment Methods

Many who have worked in Detroit automobile plants have complained of their antiquated employment methods. They vary, however, from plant to plant, making it all the more

³ *Detroit Free Press*, Feb. 1, 1927.

⁴ *Detroit Labor News*, Feb. 24, 1928.

confusing to the jobseeker who is forced to go from one to the other looking for a job. Some typical employment methods are described by A. J. Steiger, of the University of Chicago, writing in the *Nation*, May 2, 1928. He pictures the situation in the summer of 1927 when he estimates that possibly 3,500 out-of-work men were passing through certain of the factory employment offices daily. He says:

At one factory, notorious for its cheap-labor policy, the office door opens flush upon the street and no artificial lanes are constructed to help the formation of an orderly line of waiting men. Instead, the men in search of work collect about the door in a dense mass, through which a policeman must force a lane so that foremen may come out and select some friend or acquaintance and obtain for him an interview ahead of the rest. It is physically impossible for workers to be hired according to their fitness for the jobs; employment officers cannot learn enough about each man in the course of the few words that are exchanged. The applicant usually advances, meekly asking, "Are you hiring body men today?" or "Have you any work for a press hand?" If he is lucky enough to ask for the right thing, or if the officer takes a liking to the color of his eyes or his general appearance, he may be questioned further; otherwise he will be dismissed with a negative shake and a cool stare. . . .

However, men are not selected for jobs merely on the basis of appearance, nor is the first man who gets to the plant sure of a job. I discovered promptly that a workman must either ask for a particular job for which men are being hired, or he must win some special consideration from the employing officer. Although I was among the first three hundred applicants interviewed on my first day and succeeded in worming my way, the second day, to the head of the line, I was turned away from the employment office with a curt nod. Twenty-five hundred other men were turned away on that first day. The galling part of this experience was that the personnel man stood with a device in his hand for counting heads,—like a sheep-herder in the stockyards. He even encouraged some of us to come back by such phrases as "May need men of your ability tomorrow." To be told definitely, as I was, to return at 7 o'clock the next morning, and then to be unrecognized and sent away, is an experience

which beats down the jobless man's self-respect. He begins to realize by how thin a thread he holds any job.

After a week's fruitless search, I found work, not by walking through an employment lane ignorantly, but by getting some specific information about the employment situation on a particular day. A young straw boss, to whom I was introduced by a mutual friend, told me that in a certain line about fifteen men would be hired as press hands. With this knowledge to help me, I was promptly taken on.

This man was not in Detroit in the winter of 1927 when unemployment was at its height, or when near-riots of prospective employees took place outside assembly plants. Another worker describes conditions at that time: "Before midnight long lines of men were forming at the plants. These poor fellows stood 7, 8 and 9 hours in zero weather." Some of them even collapsed as a result of the long wait. Thousands were in line waiting to be among the lucky few to be selected.

A student who worked two summers at the Chrysler plant, and who experienced at least the end of the unemployment depression of 1927, wrote in his daily record at the time: "It was tragic to see the crowd of applicants file through in a single line and be refused one after the other. . . . Thousands of workers are jobless." And Steiger cites an example of one company that advertised in the local papers one Sunday for men. "Eight hundred men came out, some of them desperately in need of work; they stood around all day; finally about 20 were hired," all in the usual hit-or-miss or personal pull fashion.

During the same summer a man who carefully observed conditions in the Packard plant reported that as many as 3,000 would apply in one day, most of them asking in shy and scarcely audible voices for a chance to work. The employment manager would put them through fast, occasionally picking out one of the kind he needed, usually a younger specimen.

Looking for Work—1928

Still later experience with the employment methods of the Detroit plants comes from a keen observer who made the hot and painful rounds of the factories in July, 1928. Extracts from his diary reflect the extent of unemployment even then, when the industry was unusually active. First day:

Continental Motors Co. Stayed for half an hour. One man got job through pull. Man beside me out of job for a long time. With wife and kids and dependent father, also out of a job—he had a terrible time making ends meet, he said. . . .

Hudson's—passed through quickly. No jobs. . . .

Went to Chrysler's. Big crowd. Almost crushed in the heat. Waited for two hours. No jobs. Many of the men have dull hopelessness on their faces, some painful agony as they are turned down.

Went to Dodge. Passed through quickly. Men came in small groups, chiefly foreign. Nothing doing.

Murray Body. No jobs open. Fisher Body the same. . . . At the McCord Radiator Co. they wanted only women.

Then took street car to Ford Rouge. About 750 men there inside a clearing surrounded by strong fence. Reminded me of cattle pens. Workers told me there had been a line "a mile long" in the morning. These men had been there two or three hours. Waited about thirty minutes. Seemed to be no chance. Went home. The sidewalks burn your feet; your body oozes sweat. But all you get is the shake of the head of the clerk. . . . The men are always told individually that there are no jobs. They are never told together. I watched that particularly. At the Chevrolet plant the man at the window told 300 men separately that there were no jobs. In fact not one was hired. He could just as easily have told us all together that there were no openings at present. . . .

Next day, he continued his search:

Budd Wheel Co. first. Long line. Waited and asked for trucking or stockroom job. None. Then to Briggs Body. Big crowd but no jobs. Then to the Motor Products Co. The same.

Then to the Briggs Waterloo plant without success. Back to Hudson but with the same results. Then stayed for about an hour at Chrysler's, but the door did not open. . . There seem to be many ex-Hudson men looking for jobs.

And the day following:

Went out to Pontiac and found a mob of men outside the Pontiac plant. No jobs. Just a couple of young men to nod their heads at you in the office. Men in that town are no more hopeful or happy than in Detroit. . . . Back to Detroit and stopped off at Ford Highland Park plant. Watchman said there would be no more hiring that day. . . . So walked to Chrysler's where the rumor had gone out that production would soon start on new car. . . . Crowds of men standing around outside. Some I talked to had been there since 7 in the morning. But no one seemed to be going into the office. We were just left to stand and roast. . . . All that happens, apparently, is that a man inside the plant lets the employment office know about a reliable and "loyal" man who is looking for work. They come out and call the man's name. . . . A man who had been there six hours said there was no good in my waiting there, so I went over to Dodge's where again a slick young man asked me a lot of questions and made me believe he was going to hire me. Then he told me they were not hiring any. . . . Briggs was closed for lunch. The employment officer had closed the office. . . . Went to Murray Body and was told they were not hiring. Found an oldish foreign fellow who had been paid off the day before. He said there was a lay-off in progress. . . . Went back to Hudson's and again rejected. There was a small crowd at Budd Wheel but they were not hiring men of my age. Met a Hudson man who had recently been fired with many other Hudson men. . . .

The next day the quest of this persevering job hunter ended at the Packard gate where 200 men were in line. He landed a job as ventilator assembler, received a doctor's examination, gave a good deal of information about his life, and received three cards, one indicating the job and the pay, one for the foreman, and one for office reference. On one card was a space for marking "Department" after which came the words "Regular," "Obedient," and "Agitator."

(The foreman marks this when the worker leaves or is fired.) When he left the plant after being hired, about 200 men still waited. Some 20 had been taken on and "men were so glad to get jobs they would have taken anything, at any price. Old men were not being employed."

The Ford methods of hiring are much the same. A worker employed at the Fordson plant described the men lining up in front of the employment office, a rather ill-equipped and dingy building compared with the power house and the new administration building which all the visitors to the plant are taken to see. On the line the applicant, during the normal season, will probably wait from a half hour to an hour before he reaches the employment manager, who, according to this observer, "asks him what he wants in a somewhat surly and contemptuous tone. . . . 'Treat 'em rough and they'll respect you' seems to be the slogan here. 'Pull up your cap from over your eyes. What do you think ya are, a tough guy? Naw, we ain't got anything for you. Go on, get out. Nothing for you, *see?*' These are fair, verbatim, and in no sense exaggerated samples of the employment manager's conversations with applicants who stood in line ahead of me."

Applicants for jobs at Ford's are forced to stand, even in zero weather, in an open lot before the employment office. During slack seasons many have stood for hours, even half a day or more at a time.

On January 2, 1929, after Ford had announced that he would operate his machinery 6 days a week and take on more men on a 5-day basis, thousands of unemployed workers pressed in front of his employment shack. An Associated Press correspondent in Detroit wrote that many of the men had stood in line all night in the cold and snow. "By 4 A.M. the number was estimated at 5,000 and by 8 A. M. Ford officials said there were 32,000 on hand." Only about 500 were hired. To the others the company held out

the slim hope of being hired sometime before March 1. At the same time, however, many of the older men were being mercilessly fired from both Ford plants.

Employment Agencies

Private employment agencies are a factor in the hiring of automotive labor. In Detroit, for example, if a worker in search of a job goes to one of them and pays \$5 or more, he may run a slightly better chance of being hired than by direct application at the factory gates. For the agencies often share the fee with the company employment man. As a result of this corrupt arrangement a worker may go to a factory and find no vacancy. He will then go to an agency, pay an extortionate fee, and be sent the same day to the very plant where he had been told no men were wanted.

An investigation of these agencies in Detroit in 1928 showed that in this city alone some \$900,000 are paid to them during one year by workers in search of opportunities to sell their labor power. Not all of these were automobile workers, but certainly a very large proportion.

In addition to private agencies the Employers' Association of Detroit runs an employment office where it hires chiefly skilled workers. This organization has done all it could do to prevent the state of Michigan, or the city of Detroit from opening an adequate and well-advertised public employment exchange similar to those used by certain European cities and states to help unemployed workers find jobs.

CHAPTER VIII

WAGES

As the automobile industry is a non-union industry no definite wage scales have been established for it. Thus we find a somewhat chaotic condition in which it is very difficult to discover just what wages the workers receive.

The general impression is, of course, that auto workers, at least in comparison with non-unionized textile, aluminum or packing-house workers, receive relatively high wages. We have already noted the high productivity of the industry and its phenomenal profits for its owners. Now let us see what the workers get out of it.

General Averages

The following table shows the average number of workers and the total payroll expenditure in various years since 1904 as reported by the United States Census Bureau. From these have been computed the average yearly earnings of wage-earners, shown in the last column of the table. The figures represent workers in the motor vehicle plants as well as in plants turning out bodies and parts:

Money Wages of Automobile Workers

<i>Year</i>	<i>Average No. of Wage Earners</i>	<i>Amount Paid in Wages</i>	<i>Average Yearly Earnings of Wage Earners</i>
1904	12,049	\$ 7,159,000	\$ 594
1909	75,721	48,694,000	643
1914	127,092	101,927,000	802
1919	343,115	491,121,000	1,431
1921	212,777	318,753,000	1,498
1923	404,886	659,877,000	1,630
1925	426,110	713,931,000	1,675

This table gives rough average yearly wages for all the workers covered, including the higher paid ones. A vast number of workers obviously fell below these averages. With the great pressure for jobs and the irregularities in factory operation, the average days of auto workers' employment are far fewer than the average days that auto factories operate. So that even if these figures give fair average earnings for all *jobs*, they certainly overstate the average earnings of individual workers. But comparing them, as they stand, with the rich pickings of the stockholders during any of these years, one begins to realize the high rate of exploitation of the auto workers.

Another source of information on auto workers' wages is the study made in 1925 by the Bureau of Labor Statistics.¹ It covered 144,000 workers in representative establishments. A similar study had been made in 1922 when automobile production was much lower. The findings for the two years were as follows:

In 1922 average earnings for men ranged from 49.5 cents an hour for laborers to 93.1 cents for strippers and varnishers, at that time the aristocrats of the industry. In 1925 laborers averaged 57 cents an hour while "ding men" were the most highly paid workers in the plants, receiving \$1.03 an hour. The women's wages, as we have already observed, ran much lower. (See page 75).

Putting these figures in terms of weekly earnings we find that the average male worker, if he had steady work, was receiving \$33.19 in 1922 and \$36.87 in 1925. The full-time average for women was \$22.05 in 1922 and \$23.40 in 1925.

But full-time employment was not the fortune of the workers either in those two years or in the years since. As we have seen, short-time and under-employment is the

¹ U. S. Bureau of Labor Statistics, *Wages and Hours of Labor in the Motor Vehicle Industry*, 1925, Bul. No. 438.

rule in the industry. Even the Employers' Association of Detroit acknowledged this fact when it told an official British delegation, studying labor conditions in this country in 1926, that unskilled workers in the auto plants of Detroit were actually making only \$1,200 a year while skilled workers (we have seen how few they are) were making about \$1,640 a year.

Figures compiled by the A. F. of L., based on government wage and employment reports, place the average wage-earner's income in the automobile industry in 1927 as \$1,603 or lower than the 1923 and 1925 averages given above.²

Ford Wages

In any consideration of wages special attention should be given to those paid by the man who has done so much to popularize among employers the "gospel of high wages." He, more than any other employer, has given circulation to the myth that Detroit is the home of the highest wages in America.

The Ford company, as is well known, is the only company paying all its workers by the hour rather than by the piece. Ford wages were for many years one of the reported attractions of those seeking work for the first time in Detroit. Ford's decree in 1914 making \$5 per day the minimum wage in his plants was regarded universally as a great humanitarian move. But this was fifteen years ago. The question to-day is: do the Ford workers make more than they did then, or more than they did in 1920 when the Ford minimum had been raised to \$6 a day?

Let us compare the years 1925-1926 with 1920. In 1920 the average wage of Ford workers was \$6.71 a day and work was comparatively steady,—that is, there were about 300 days of work during the year and the average yearly

² A. F. of L., Research Series No. 6. *Wages in Manufacturing Industries*, 1899 to 1927, p. 56.

wage was about \$2,013. But for the latter half of 1925 and the first half of 1926, a twelve months' period studied by one student who worked in the Ford plants, we find that the days worked amounted to only 222 in the year, while the average wage was slightly less, or \$6.67 a day. (Both this average and the \$6.71 figure for 1920 included all the foremen and the skilled workers.) The average earnings for this latter twelve months' period were only \$1,480. We find thus a very substantial difference of well over \$500 as between the two periods and an even greater decrease if we make the comparison with subsequent periods when Ford employment was very low.

In December, 1926, Reinhold Niebuhr, who had made a careful investigation of conditions among Ford workers, wrote:

Outside of a few thousand highly skilled workers such as tool-makers, die-makers and pattern-makers, it is hardly possible to find a Ford worker who earned more than \$1500 during the past year. . . . Years ago when the five dollar a day minimum was established, which meant thirty dollars a week, the Ford boast that an adequate wage obviated the necessity for charity was not an idle one. To-day it is an idle boast, for living prices have well-nigh doubled and the weekly wage still hovers about thirty dollars . . . the actual wage is immeasurably lower than in 1913. . . . The statistics of practically every charity reveal not only a proportionate but frequently a disproportionate number of Ford workers who are the recipients of charity.

While the yearly wages were thus being drastically reduced, the hourly productivity of Ford workers, or the work done per man per hour, was steadily increasing.³

Real Wages

Comparing the development of the money wages of all automobile workers with that of retail prices of necessities

³ For further discussion of Ford wages see p. 97.

for the whole country, A. F. of L. statisticians estimate that, taking the year 1899 as 100, "real" wages (or wages in terms of what they will buy) were only 8.6% higher in 1927—27 years later. The trend over this period is shown in the following table of index numbers:

Trend of Real Wages of Automobile Workers—1899-1927

1899—100	1921— 89.6
1904— 90.3	1923—111.0
1909— 82.8	1925—112.1
1914— 90.4	1927—108.6
1919— 89.2	

If one compares this with the trend of real wages in other industries one finds that the automobile industry is "among the industries which have paid an income with the smallest increase from 1899 to 1927."⁴

All wage figures dealing with this industry indicate a reduction after 1925. This is shown most clearly in indices that take into consideration unemployment and part-time employment. A table that attempts to make allowance for this factor has been prepared by William E. Chalmers of the University of Wisconsin. It includes in its calculation all the workers employed in the industry at one time or another during a given year and assumes this to be the true number of workers who are in some way attached to the industry. With this correction, annual wages of auto workers, expressed in terms of purchasing power, run as follows since 1919:

Trend of Real Wages of All Workers Engaged in the Automobile Industry, 1919-1927

1919—100	1924—105
1920— 80	1925—123
1921— 83	1926—117
1922— 96	1927— 94
1923—121	

⁴ American Federation of Labor, *Wages in Manufacturing Industries*, 1899 to 1927, Research Series No. 6, 1928, p. 58.

These figures probably more nearly represent the real wage situation than those of other agencies, for they allow for the important factor of partial employment and under-employment.

"Labor's Share"

To indicate a significant trend wages may also be considered from another angle. If we take the census figures from 1904 to 1925, as given in the first table in this chapter, and measure what the A. F. of L. statisticians call "labor's share" in the value added by manufacture, or "the percentage of the value of the product which goes to labor" (the wage-earners) we find that the workers in the automobile industry actually received less in 1925 than they did in 1904:

*Index Numbers Showing Trend of Automobile Labor's Share
in the Value Added*

1904—100	1921— 93.1
1909— 92	1923—100.0
1914— 82.7	1925— 90.3
1919— 95.6	

In other words, in spite of an increase in the production of cars and enormous increases in profits, only 40% of the value created in the automobile industry in 1925 went to workers' wages, as compared with about 45% in 1923 and about the same percentage in 1904. And from the standpoint of so-called "social wages" (wages measured in terms of the productivity of the industry as well as the cost of living) the automobile worker is thus in 1925 less well off than he was in 1923 or even in 1921, 1919, or 1909! Although, as we have noted at the beginning of this chapter, money earnings of the workers rose somewhat between 1922 and 1925, their "social wages" went in the opposite direction. They went downward.

Workers' Budgets

Even taking the money wages of automobile workers as computed from government reports, what do they actually mean in terms of food, clothing and shelter? During the war the Department of Labor undertook several investigations into the budgets of workers' families. After a budget called the "minimum health and decency budget" was worked out, the cost of the items included in this budget was priced in various cities. The budget provided for only a minimum below which a worker could not go without its affecting both his health and social decency.⁵ Only the barest necessities are provided for in the way of food and clothing and meager surroundings.

This budget, priced for the whole country in 1919, amounted to \$2,262.47. It is immediately apparent that the automobile workers, despite their reputation for "high wages," have at no time approached even this low level of subsistence.

The Detroit Visiting Housekeepers' Association has re-priced this budget at various times for Detroit, a city in which the cost of living is well above the average for the whole country, in an effort to ascertain the amount of money a worker's family needed to live in health and decency. They found that in October, 1925, it took \$2,028. Now compare this amount with the \$1,675 yearly wages that the automobile worker is estimated to have made that year if he was fortunate enough to work the average time that all automobile plants were in operation. We find an annual deficit between the cost of living and the annual earnings of \$353. In 1926 and 1927 this deficit was as great, if not greater, for although there was a slight reduction in the cost of living, yearly earnings of auto workers, as we have seen, also went down.

⁵ *Monthly Labor Review*, August, 1919.

Thus it would appear that the wages of the workers in the industry have always fallen below the cost of the lowest subsistence level on which health and decency can be maintained. In sharp contrast to this stands the level of luxury on which the owners of the industry have been able to live, and the huge profits and reserves which have been accumulated. During the lay-offs of 1927, the wages of many workers were reduced and with them their standards of living. But the industry which had amassed such enormous profits took no notice of them. No funds had been set aside to take care of workers in time of stress. No unemployment insurance had been provided by the state as in many other countries. Henry Ford, who had preached of "high wages" for so many years, took no measures to insure a living for his laid-off employees.

On the other hand the large reserves and surplus funds of the companies took good care of the investors. Dividends were paid out of surplus and the officials of the companies did not fail to draw their regular incomes. The expensive machinery in the factories was also well taken care of and not permitted to deteriorate. Only the workers, the wealth producers of the industry, were left unprovided for. They were turned out to shift as best they could. Many, as we have seen, were forced to seek assistance from charity agencies.

Comparisons With Union Wages

The employers of automobile labor frequently boast of the fact that they have made their millions because of the "open shop" (non-union) conditions in the industry. It is important, therefore, to compare the earnings of auto workers with those in trades where no "open shop" exists and where union power has forced wages up.

We have noted that the Bureau of Labor Statistics found the average hourly rate for male workers in auto factories

in 1922-23 to be about 66 cents and in 1925 about 72 cents. But the average union wage in 1923 was 86 cents an hour and in 1925 \$1.09 cents an hour. The list of union trades and industries covered by these figures includes both skilled and unskilled bakers, building trades workers, chauffeurs, teamsters and drivers, granite and stone workers, laundry workers, linemen, longshoremen, metal trades workers, street railwaymen, and workers in printing and publishing establishments. In addition, these trades, because of their union strength, showed an increase in money wages of over 27% between 1922 and 1925 compared with the 10% increase reported for the auto workers. At the same time, in none of these industries has the increase in productivity equaled that of the motor plants. Since 1925 many of these trades have won more increases in wages while wages of auto workers have been progressively reduced.

Wage Cutting

Since the Bureau of Labor Statistics made its wage survey in 1925, automobile corporations have resorted to wage cuts right and left. While the companies have announced reductions in car prices, no public announcements have been made of the accompanying wage cuts. This practice of "no publicity" on wage reductions is only possible because of the absence of organized labor in the industry.

As is commonly known, sweeping general wage cuts are not made in this industry. It is usually a piecemeal process. The manufacturers do not, as in textiles or coal, announce that wages in the industry, or even in a given city, are to be cut at the same time. Indeed it is very seldom that all workers in one plant are cut together. The cuts come rather group by group or department by department. Thus the resentment of a large number of workers is not simultaneously aroused. The employers consider it wiser to give a few workers a slash, and then to explain to the next

group that the other set of workers has already seen the "reasonableness" of the move. Unorganized workers are always helpless against such tactics.

Various methods are used to achieve a cut or its equivalent. Reductions may be made in straight time or in piece rates. They may be made by a "readjustment" or "correction" of the often complicated bonus system. Sometimes workers are discharged and then rehired at lower rates, or others are hired at lower rates to take their places. The robbing of bits of time from the workers, getting extra pieces of work done gratis, docking workers a half hour for a moment's tardiness—all are forms of wage cutting.

The straight cut in time or piece rates, often in connection with the beginning of work on new models, is, of course, the most common method. This may come partly as a result of the speed-up system. When the worker has hustled and produced more at a given rate, that rate may be cut at the beginning of the next pay period. It has been done even between pays without definite announcement by the company. General Motors firms have reduced the piece-work prices on new models after the prices have been definitely fixed. The unorganized workers in the Oshawa plants of General Motors were so aroused by this practice that they struck in the spring of 1928.

The number of straight cuts in the different plants of various companies within the last two years runs into the hundreds. The workers were weakened and at the mercy of the employers. The complete lack of uniformity in wage payment methods made it easy to put over departmental cuts. The employment market was saturated. The workers were forced to take the cuts or face unemployment with thousands clamoring at the doors for their jobs. In Fisher Body and other body plants the cuts over a period of years were very drastic. The Dodge workers were cut in one department from \$4.55 a hundred on certain operations to

\$3.10 a hundred. *The Auto Workers' News* of September, 1928, reported Dodge cuts as follows:

In 21B, Camshaft Dept., on July 18, the rough grind operation on camshaft bearings was cut from \$5.20 to \$3.55 per 100 . . . cutting Woodruff keyways was reduced from \$1.10 to 95c per 100, and the turning operation on camshaft bearings was cut from \$1.30 to 85c per 100. . . . The screw machine operation of drilling holes in camshafts was cut from \$2.85 to \$2 per 100. . . . That this is just a plain cut can be seen by the fact that there is no change in the camshaft nor in the operations which would mean less work for the worker.

The new Chrysler administration made these cuts.

Buick workers reported a long list of wage cuts about the same time. One set of workers had their pay reduced from \$9 and \$10 for 12 hours of work to \$6 and \$7 for 13 hours. Workers on the Buick axle line who had received \$7 for 9 hours' work were cut to \$5.95 for the same length of day. Men in Fender Dept. No. 55 of the Buick plant were making 9.8 cents on a fender and were able to make \$8.64 in 9 hours of work. When the piece rate was cut to 8.4 cents in the summer of 1928 they had to do over 100 instead of 88 to make the same daily earnings. These are only samples of reductions typical of all the plants in recent years.

A favorite method of reducing wages during this period has been to lay off men working for a certain rate; then to rehire the same men in the same, or in another department, at a lower rate. Ford, for example, laid off many veteran \$6.80 and \$7.20-a-day men and took them on after a time as beginners at a \$5 starting rate. This happened to thousands of Ford employees during 1927 and 1928, and was admitted by Ford personnel men who contended, however, that it was not widespread. Reports from workers would indicate the contrary.

Closely related is the practice of firing higher paid men and employing others for the same operation at lower rates.

For instance, in November, 1927, some 80 men who were receiving top wages at the body division of the Fordson plant were fired and new men soon hired in their places at the \$5 rate. And in 1928 men earning 90 cents an hour were discharged by Ford while others were taken on the same tasks and paid 62 cents.

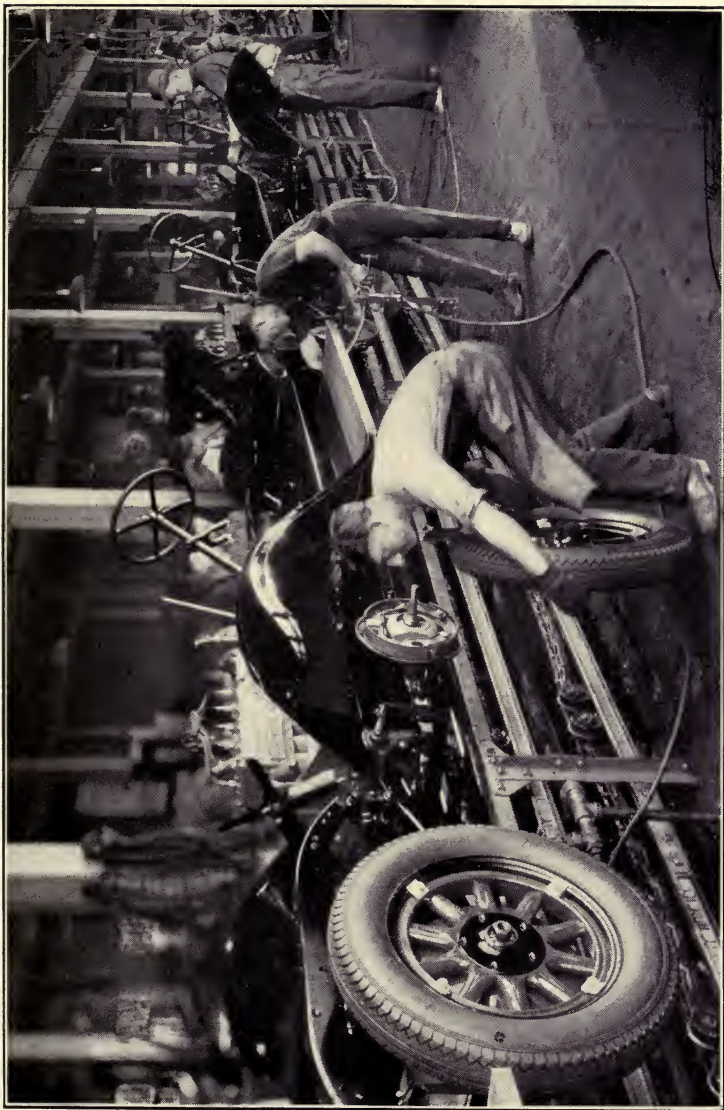
At Packard's, on one occasion in 1927, men in the trim shop were making from 80 to 90 cents an hour. These men were laid off and new men hired at 70 and 80 cents. In 1928 the second batch of workers were laid off and new ones taken on at 54 to 60 cents an hour. Still another group of men in the same plant were covering decks on closed cars. They were receiving 70 cents an hour. They were ousted and other men employed who were given 56 cents an hour.

Methods of Wage Payment

With large factories, automatic machines, subdivision of jobs, and mass production go various wage payment systems different from those formerly employed in the regular metal trades. A recent investigation into the status of wage earners in various states, by the National Industrial Conference Board, showed that Michigan easily led all other states in the proportion of workers paid on what is called an "incentive basis." A total of 70% of the wage earners were operating either under piece work or on a bonus system (about 41% were on bonus and 30% on straight piece work). "This is probably due," says the report, "to the extensive use of these systems in the automobile industry." ⁶ In practically all auto plants with the important exception of Ford's, where straight time payments prevail, some form of piece work or "time and bonus" system is in operation.

Of the 99 automobile plants reporting to the Bureau of

⁶ *The Economic Status of the Wage-Earners in New York and Other States*, National Industrial Conference Board, 1928, p. 47.



OLDS CHASSIS ASSEMBLY



Labor Statistics in 1925 some 38 had bonus systems in operation all or part of the period between 1922 and 1925, and there is every reason to believe that the percentage has since greatly increased. In some plants the bonus was based on individual production, in others on the production of a group or gang. A detailed description of these "bonus systems and incentives" is given in the Bureau report.⁷

Practically every plant differs in the details of its wage payment system, especially when it uses a bonus system. Thus a worker moving from one plant to another is compelled to compute his probable earnings from a basic rate plus an intricate bonus different from that used in the plant, or plants, where he has previously worked. The result is that the worker rarely knows on what basis his wages are being paid. What at first sight may carry the promise of a high rate of wages often turns out to be much lower. This lack of uniformity in the methods of paying wages, as we have seen, opens the way for wage cutting. It is always safer for an employer to clip a little off a complicated bonus than to reduce straight time or piece rates.

But no matter what system of wage payments is used it is so fixed as to get the maximum amount of work out of the men for the lowest wage possible, and to enable the company to increase the amount of work without increasing wages or provoking the resentment of the worker. When they first hear the word "bonus" or "premium," some workers may believe that it signifies more total earnings. They soon become disillusioned.

Gang Bonus

The gang bonus is now very common in practically all departments of motor plants. At the Flint Chevrolet plant, for example, 13,000 out of 14,000 workers are paid by this system. Under it those engaged in the production of a

⁷ U. S. Bureau of Labor Statistics, *ibid.*, p. 20.

specific part or product are grouped in gangs or teams ranging from 5 to 50 or more. A variable bonus payment is made to the group, based upon the production above a standard which it achieves. This standard, of course, is set by the time-study man and the tasksetter. Although theoretically a lump sum is put aside for the group as a whole this sum is divided among the personnel of the group depending upon the individual basic rate of each worker. Often, as, for example, under the system used at the Studebaker plant in Detroit, the foreman divides the members of the gang into 4 classes on the basis of skill required for the performance of their individual operations, the amount they can produce, etc. Class "A" will thus receive the most wages, class "B" a little less, and so on with the other two classes.

The effect of the group piece-work system is to make the workers push each other. The cost of supervision is cut, although, as we have seen, a few bosses are still required to direct operations. Under this effective speed-up system the workers are induced not only to boss themselves but to boss each other. They do this because under the gang plan a job, requiring, say, 20 operations, that is spoiled in any one of them means a loss to all the other 19 workers in the group. No wonder there have been instances under this system of the men even striking to secure the elimination from their gang of a worker unable to keep up the pace. As the Bureau of Labor survey puts it: "Under such systems undesirable employees are soon eliminated," by "undesirable" probably meaning those physically unable to keep up with the speeding gang.

The working of a typical time and bonus system at the Hayes-Hunt Corp. (Durant subsidiary) plant suggests the sort of mutual speeding up effected through such schemes. A worker describes it:

In the stamping of doors, there are five men working on one press. The operator gets 24 cents a hundred, the fellow receiving the doors after they are stamped gets 22 cents a hundred, the wiper receives 20 cents a hundred, the grinder receives 20 cents, and the man who places the metal on the bench for the wiper receives 15 cents a hundred.

The basic time rate for all these men is 40 cents an hour. At the highest rate of speed, they can turn out 200 doors an hour. Therefore the operator will get 8 cents an hour above this hourly rate. The receiver will get 4 cents more, while the wiper, the grinder and the fellow placing the metal sheets on the bench receive nothing above their hourly rate.

What is the result of such an arrangement? The worker explains:

The operator drives the receiver, wiper and grinder, and all the workers connected with the operation to supply him with sufficient stock so that he can reach the maximum rate set by the timesetter, which is 60 cents an hour. But when he has reached this amount he has no more interest in hurrying because he will not be paid over the rate set. Also the rate will be reduced if he makes too much. However, those getting 22, 20 and 15 cents a hundred are far below the maximum, and they drive the operator and receiver in their efforts to make a few extra pennies.

Thus we all drive one another. Bad feeling is caused, keeping us divided.

This group driving is one of the most characteristic features of all group bonus schemes. Also the many different wage rates of men working close together and apparently of equal skill, tend to divide the workers and blind them to their common interests.

Another thing the gang payment method does is to make the workers in the gang bear the cost in their wages of the new man or the inefficient man until he reaches the accepted rate of speed. The men, rather than the company, thus carry the expense of the new worker's training, and incidentally save the company a lot of worry about high "turn-

over costs." The workers thus bear the responsibility for seeing that the newcomer is taught at the earliest possible moment to speed up with the others. And he is not so likely to resent his first taste of speeding if it comes about in this way as pressure from the men, rather than as orders from a boss.

Uncertainties

As we have suggested, one of the main objections of the auto workers to the various bonus, "incentive" and premium schemes is that they never know what they will receive in the pay envelope till the end of the two weeks' pay period. Unable to understand the system, they are in danger of being robbed in one way or another. A worker employed in the motor testing, and later in the hood stamping department of a Packard plant in 1927, writes that "the bonus system was in such a state that I found no man who believed that working harder would raise it. We would get 5 or 6% (or nothing) every pay day added to the 50 cents an hour which most of us received. The men of years of experience unanimously said that we could get the bonus if Packard wanted us to have some; if not we received none." Again he writes: "The men have no faith in it, did not understand it, were deceived by it when being hired, and considered it a perfectly arbitrary matter fixed by the bosses." And a Dodge worker writes on one occasion: "When we received our pay, some of the old-timers said we were short-changed about \$1.50. I can't figure out this bonus stuff . . . with the 'bone-us' system they get a chance to 'gyp' us out of a few dollars by setting it high or low to suit themselves." Having no organization to represent them the workers can have no part in determining the kind of compensation system or the amount of the bonus. They must, as one worker put it, "take what they hand us and keep our mouths shut."

Once when some naïve Studebaker workers in Detroit

suggested to the company that they be permitted to form a committee to discuss a new group payment plan, under which they found they were losing from one to two and a half dollars a day, although turning out, they contended, the same amount of work, they were told that no meetings were to be held or workers' committees formed at the Studebaker plant. They were also told by the Studebaker superintendent: "When you are in school you have to do what the teacher says; when you are in the army you have to do what the captain says; and when you are in the factory you have to do what the boss says. You are here to produce; we will do the thinking."⁸

⁸ *Labor Age*, March, 1927.

CHAPTER IX

HEALTH AND SAFETY

Accidents on the Job

ALTHOUGH the statement has been made in conferences of safety men that the automobile industry leads in safety work, the fact is that its accident rate is still high, especially in the foundries, drop forging plants, sheet metal stamping departments and machine shops. Assembly departments are said to be less dangerous, but even here with the increasing speed of complicated machinery and the deadly monotony of routine jobs, the accident rates are high.

The annual average accident rate per 10,000 (300-day) workers in the automobile industry, for the years 1925-1926, was 315.2. This means that about one worker in 30 is injured every year, at least to the extent of causing recorded temporary disability. This number includes 2.7 deaths, 40.9 permanent disabilities and 271.6 temporary disabilities.¹ The automobile accident rate is a little higher than that obtaining in the chemical industry and a little lower than that in stamped and enamel ware establishments.

In spite of all the safety work now carried on by automobile firms, grouped in the Automotive Section of the National Safety Council, the accident rate continues to increase. This is the conclusion of a study on "Safety and Production" made by a committee of the American Engineering Council. In the four factories studied it was found that the accident frequency had increased over 4% in four years. But more significant was the increase of 22%, recorded dur-

¹ According to tables assembled in the *American Labor Year Book* (1928) from official government sources.

ing the same period, in the *severity* of accidents. In fact this severity rate had increased faster than the increase in production for the 15,000 workers employed in the plants embraced in the report. Commenting on this situation as well as on that obtaining in certain other industries the council report says:

Apparently the increased seriousness of accidents during the last few years has been the direct result of the increased intensity of industrial activity during that period. . . . There are, however, forces inherent in mechanization itself and in the consequent speeding up of industry which have a direct tendency to increase the seriousness of accidents.

These tendencies are perhaps more operative in the automobile industry than in any other. The hazards per worker have been increased. The type of work required on the new automatic machinery is intrinsically more dangerous than that performed with the earlier machines. Finally, there is the increased speed induced under the mechanized conditions. This has made the exposure to accidents for the worker proportionately greater. For example, H. A. Coffin of the Cadillac Motor Co. cites an instance where, under a forcing system, production was increased 30% at the expense of a 100% increase in accidents.²

Even more alarming figures than those of the American Engineering Council are cited by W. H. Cameron, Managing Director of the National Safety Congress, in addressing the Industrial Accident Conference called by Secretary of Labor Davis, in July, 1926. He says:

The 67 companies in the automotive group reporting for the two years, 1923 and 1924, show an average increase of 22% in the frequency rate and an average of 167% in the severity rate. This record has stimulated these companies to greater effort and the council is given the opportunity to hammer away at the

² Proceedings, National Safety Council, Twelfth Annual Safety Cong., 1923, p. 174.

industry as a whole and at the companies that are not getting results.³

No industry of the several listed by Mr. Cameron had a worse accident record than the automotive and he, too, attributes this chiefly to the "speeding up of production." He also says that the "necessity for cheaper production means that less attention is given to safety."

There seems to be no complete record of the kinds of accidents in the industry. They are much the same as those which occur in the machine trades where the roar and din of machinery blunts the worker's senses, rendering him unconscious of dangers in his daily work. In the assembly plant the most common accidents come from the men's being caught between chassis and cars, from dropping material, from wheel trucks running over feet and the closing of car doors on fingers. The dangers involved in the numerous conveyors, moving chains, cables, cranes, belts, hoists, trucks, motor trains and other mechanical handling equipment, are apparent in every plant. Then there are the dangers of the punch presses which a Chrysler safety man calls "as vicious as a rattlesnake." Spot welding and electric welding cause eye injuries and burns. Unsafe dies lead to many accidents. Crowded machines and narrow aisles, as in certain Ford departments, are also contributory causes. Lathes and other machine tools have their hazards, and portable electric motors, used in assembly work, often explode in the hands of workers, causing severe burns. Slippery and oily floors in certain departments add to the frequency of falls.

³ Records for 1927 show a slight improvement for over 100 auto companies (employing some 200,000 men) reporting to the National Safety Council. The 1927 average frequency rate for these companies was 21.51, while the average for the five years previous equals 23.92. And the 1927 average severity rate was 1.01, while the average for the five years previous was 1.17. The number of establishments reporting, it should be noted, varied from year to year (*cf. Industrial Accident Experience of Members, 1927*, Nat'l Safety Council, 1928).

In recent years as machinery tends to be more carefully guarded, most industrial accidents are found to come from the too speedy handling of material.

Recent accidents as reported by workers in various Detroit plants, some of them in their own words, are worth recording. One worker employed in the Ford plant describes several accidents in succession on the same machine:

On the press doing the lock-pillar job a man had just lost the small finger on his left hand. The parts being turned out by this press were very badly needed in order to maintain the production schedule. So no time was taken to find out whether the accident was due to some defect in the machine. Another man was immediately put to work on the very same press. He had not turned out more than a half dozen pieces when he lost the thumb of his right hand.

Two accidents on the same machine within less than half an hour naturally caused some excitement in the department. The second victim was rushed to the hospital. Then the men congregated around the machine talking about the accidents. . . . A few showed signs of resentment that the lives and limbs of workers were of such little importance. The discussion, however, did not go on very long. Foremen and straw bosses came rushing over, yelling "Back to work, back to work!" The men suddenly obeyed. Production went on as usual.

The foreman called another man over and brusquely ordered him to go to work on the same press. The man looked at his ten fingers. Then he looked at the foreman. Then he told the foreman that if he was in such a hurry to get the parts being turned out by that press, that he had better go to work on it himself. Before the foreman could collect his thoughts to fire the man, this worker told him that he had quit.

Other workers in this Ford plant have lost their fingers on punch presses after the foremen had told them how they could get more work done by using their fingers on the sheet metal rather than the usual pair of pincers. This failure of the foremen to enforce safety rules and regulations often raises the accident rate. For example, a Ford worker who called his boss's attention to a crack in a casting

received the answer: "Oh, that's all right, let's go! I want a hundred pieces before the quitting bell rings." A few minutes later the casting broke and the worker was nearly killed with a piece of it.

A Major Accident—the Briggs Fire

On April 23, 1927, at least 21 workers were burned to death, and many others permanently injured, in an explosion and fire which destroyed a large main building at the Harper Ave. plant of the Briggs Manufacturing Co. in Detroit.

For years the Briggs plants have been regarded by auto workers as the worst plants in Detroit from the standpoint of safety and sanitation as well as general working conditions. Visitors are strictly barred from the Briggs plants. The writer attempted to inspect one of them in the winter of 1927-1928 but was told by a girl in the main office: "We don't let anybody through. Yes, I am instructed to say this."

Highly inflammable materials were stored in the Briggs plant. These materials contained such explosive ingredients as nitro-cellulose, acetone, benzol and wood alcohol. These materials used in lacquering auto bodies were sprayed into the air under high pressure thus preparing the atmosphere for combustion at the slightest accidental spark. Moreover, the company failed to provide adequate systems of exhaust ventilation to carry off the dangerous fumes. The workers paid for the company's negligence with their lives. The terrific explosion was followed by fire, completely destroying the "fire-proof" building.

The chief boiler inspector of the Department of Labor and Industry of Michigan while assigning the accident as "an act of Providence" and practically clearing the company of all negligence, at the same time found that the catastrophe was caused by the ignition of the vapor from the pyroxylin lacquers through static electricity. (This is just

like saying: "a lighted match caused the fire." If there had been no explosive fumes, no amount of static electricity could have caused the explosion.) This electricity, he contended, was generated because the nozzles of the spray guns and other apparatus in the spray painting booths were not grounded. He recommended that, in order to avoid further accidents of this kind, "spraying should be done in one-story buildings (the Briggs structure was of five stories, and the spraying was done on the third and fourth floors) of fire-proof construction," which is certainly not the practice to-day in many auto plants. He also expressed the opinion that "the great loss of life and severity of burns received was due to the fact that the operators of the spray guns got their clothing saturated with the lacquer." (Any one who has watched the painting of bodies and chassis knows that the spray gun workers cannot help being saturated with the dangerous liquids now commonly used.) He also found that "with few exceptions the spray booths are not designed with proper engineering consideration." This is as true of many other plants to-day as it was of the Briggs plant before the catastrophe of April, 1927.

Commenting on the disaster at the Briggs plant the Workers' Health Bureau says: "The explosion in the Briggs plant is conclusive proof that systems of ventilation are not removing poisonous fumes in factories where spraying is being done." According to the *Auto Workers' News*, "the Briggs Corporation did all in its power to suppress as much news concerning the accident as possible. Soon after the disaster occurred, a meeting of all the Briggs foremen and straw bosses was called and they were told to keep their mouths shut."

Health Dangers

Made up as it is of various processes from foundry work to painting the finished machine, the automobile industry

involves all the hazards to health found in any of these processes. Little scientific work has been done relating to the health dangers that confront the worker in the automobile factory as a whole. Dust from sandblasting; brass chills; bronchitis and other respiratory diseases; lead poisoning in all the processes where lead is a factor, such as soldering, making of batteries and painting; heat in the forging and other hot processes; fumes from acid dipping and electroplating, dust from polishing, buffing and woodworking—these hazards, intensified by nerve strain from the speed-up, noise and vibration of throbbing machinery, all have their effect on health.

Among nearly 18,000 auto workers examined in the state of Ohio, from 5 to 10% had contracted tuberculosis as a result of their occupation, while 15% of the carpenters, temperers, painters and varnishers had lead or turpentine poisoning. According to this survey, "The automobile industry supplied more than its proportion of lead poisoning cases."⁴

Automobile painting is one of the important processes in the industry. The painting trade has always been admitted to be one of the most dangerous. Practically all paint materials are poisonous, some intensely so. Lead, wood alcohol, and more recently benzol, which is used in automobile lacquers in tremendous amounts (due to its quick drying qualities) should be prohibited even where paint materials are applied by hand in large unoccupied rooms. When these materials become concentrated in a poorly ventilated hot work room, day after day, their use presents an unpardonable hazard.

The sandpapering of automobile bodies, making each of the many coats of paint smooth for the succeeding coat, for instance, requires the services of a given worker eight hours a day, whereas in the house painting industry sand-

⁴ Kober & Hayhurst, *Industrial Health*, pp. 193-194.

papering is done only for an hour or two once a day, if that often. When lead is part of the coat to be rubbed down, quantities of lead dust fill the air and are breathed by the workers.

In 1922 over 100 automobile workers were sent to Detroit hospitals with what amounted to a virtual epidemic of lead poisoning. The Detroit Department of Health found that in the sandpapering department of a certain plant it was necessary to employ 2,000 men in one year to keep 200 positions filled. This high turnover, of course, prevented a much larger number of actual cases from being reported.

One process of painting and lacquering which has been especially developed for automobile factories has been the subject of determined scientific investigation because it has increased every hazard in the painting industry. This process is the application of paint by means of an air pressure device called the spray gun. It was this machine which was responsible for the Briggs explosion and fire already referred to, where 21 workers were burned to death.

The National Safety Council made an exhaustive study of the hazards involved in spray coating and concluded that unless lead and benzol were prohibited, only air velocities of 200 linear feet per minute would give workers any assurance of protection from the poisonous spray. Respirators were found to be useless against these concentrated fumes, and gas masks and army helmets are too uncomfortable for continuous wear. The council committee suggested what they call a "Positive Pressure" respirator, which supplies fresh air to the nose and mouth of the worker from a hose attached to the air supply tank of the spray machine. Needless to say, no worker can climb on top of automobiles on a conveyor line, or work beneath them, encumbered by such attachments.

The Workers' Health Bureau, which has given a great deal of study to the protection of automobile sprayers, ad-

vocates the prohibition of this machine unless lead, benzol and wood alcohol have been eliminated from the spray materials and unless artificial systems of exhaust ventilation, supplying a minimum of 125 linear feet of air, are provided. The Bureau points out that "even where carried on in specially constructed booths, which must be provided if other workers on the same floor are to be protected, and with 125 feet of air constantly passing by the working face of the booth, and where lead, benzol and wood alcohol have been removed from spray materials, there is no assurance that workers will not be poisoned by some of the many other ingredients of paints, varnishes and lacquers."

Medical examinations of 96 automobile refinishers made in December, 1927, by the Bureau, in coöperation with the New York City Health Department, "showed over one-fourth of the men examined affected by benzol, which destroys the blood-making powers of the body, causing anemia, hemorrhages and death." This examination also showed that respiratory diseases and nose and throat affections were high for all workers examined, those using the spray and also those who were not actually spraying but who were not protected from the fumes thrown off by the spray machine. Other diseases found among these workers in high amounts were bronchitis, emphysema and asthma. Nine workers showed evidences of lead absorption.

Another real health hazard for certain workers arises out of the electroplating process used in making the new rust-proof, non-tarnishing finish for headlights and other accessories. The chromium compounds used in this work are very dangerous and have caused chrome poisoning and ulcers on the skin and hands of workers. The number of cases of chrome poisoning has recently increased in the industry.⁵

⁵ Cf. *Journal of American Medical Association*, June 16, 1928, article by Dr. Jackson Blair, and "Health Hazards in Chromium Plating," *Public Health Reports*, Sept. 7, 1928, U. S. Public Health Service.

Various kinds of health dangers in the automobile industry are strikingly illustrated in the following reports and incidents of conditions actually observed in the plants to-day.

Take Department Z-6 of the Ford Highland Park plant of which a worker writes: "The spraying lines run parallel with the trim lines and only a few feet apart. There are about a dozen sprayers on this line spraying the sickening paint called pyroxylin in the open with practically no protection to the other workers around them. These one-horse suction blowers here do not take care of the dense fog that rolls over and envelops the workers like a smoke screen. The workers must breathe in these poisonous fumes and some go home sick from them." Another worker in the Ford sedan and coupé body department says that the spraying booths in operation there are a joke. They are too small and are not equipped with adequate suction blowers. The spray fills the entire floor and often makes the men feel like vomiting. The same conditions, existing where "Duco" is sprayed, are complained of by workers in certain plants of the Fisher Body Co.

The writer has seen workers spraying the enamel on the chassis in the Packard plant, all of them as black as miners, their working clothes drenched with the liquid, some with masks and some without. And in the Studebaker plant the writer observed men spraying chassis with no booth protection in open rooms where the sprayers, as well as other workers along the line could get the full "benefit" of the spray. After spraying for a while the men would be seen to removed their masks and spit out some of the stuff, which in spite of the masks had gotten into their throats.

In addition to the spray from painting jobs there are other fumes and smokes given off by electric furnaces as in the Ford brass foundry. In the electric and acetylene welding departments the air is frequently so thick from fumes that the men can scarcely see each other, and in some places there

are no fans or ventilators to carry away these fumes. The various chemicals used in many departments give off injurious vapors. One case is reported by girls working in the Hudson plant. A certain fluid smelling like ether, which they use to clean off cardboard panels, produced fainting and even vomiting. One day 52 girls were out sick as a result of working with this liquid, and some were fired for staying home on this account.

Fumes from exhaust gases, where hundreds of motors are being tested, are especially dangerous as they are rich in carbon monoxide. These gases have caused asphyxiation where engines have been run in closed or badly ventilated garages. Similar hazards exist where cars are taken off the ends of assembly lines, their motors running, to be finally inspected inside the factory. The toxic nature of this gas has been shown in studies of the United States Public Health Service.

In spite of legislation calling for exhaust fans, dust continues to be a hazard in auto factories. Workers in a Fisher Body plant complain that their departments are so filled with dust that any one working in them for any length of time contracts tuberculosis. "Some have to quit from T.B. after working a while," says one of these workers. "It certainly is about time for the company to put in some vacuum pipes to take care of this dust floating around." Another worker from the same plant adds: "Instead of safety signs, what is needed are more ventilators and dust fans."

Skin eruptions caused by oils used to cut down metals are extremely irritating and of frequent occurrence. Many oils, having this effect upon the skin, should not be used. In addition, cutting oils, filled with tiny particles of metal and often contaminated from the dozens of men who have used them, are used again before being disinfected, thus continually spreading the danger. Tiny cuts in the skin often become seriously infected through these oils.



WELDING GASOLINE TANKS

Closely related to the maintenance of healthful conditions in the plant are the washing facilities. The law of the state of Michigan may call for "proper washing and dressing rooms" but conditions described by the workers in certain shops would indicate that the companies often ignore the statute. For example, we are told by a Packard worker that there are no wash basins in the spraying department and that the spray painter is compelled to eat his lunch with his hands covered with paint. This seems to be the condition in other shops where washing facilities are inadequate or entirely lacking. A worker in Fisher Body plant 18, Dept. B, for instance, complains of "no hot water to wash the dirt, grime and glue off after the day's work." Similar conditions exist in Dodge plants. Complaints about no time to clean their hands, even when wash rooms exist, are made by Ford workers. But it must be remembered that the Ford plants furnish no rest and dressing rooms of any kind and no lockers for street clothes and overcoats.

"In the Essex cylinder block division of the Hudson Motor Co.," according to one worker, "facilities for washing and dressing are unknown," and workers in the Jefferson Ave. plant of the Hudson Co. in Detroit also complain of bad sanitary conditions, of filthy drinking fountains, no place to eat, and no provision for the washing of hands. In the tool and die department of the same plant one large wash bowl is reported for 200 men. And workers in Dept. 42B complain that even though they are handling paint there is "no hot water and no washing facilities of any kind." But, as one worker suggests, "you can go to another department and waste 30 minutes waiting for your turn to wash."

The short lunch period, lasting from 15 to 20 minutes, is also a constant source of complaint. The Ford worker who buys his lunch on the job is compelled to rush to a queue in front of a lunch wagon and wait there for several minutes before he can snatch his food. This leaves him from 5 to

10 minutes to swallow it. Medical authorities agree that a human being must eat fairly slowly and rest a while after eating. But such a practice is entirely out of the question where the shift on the assembly lines is given only 15 or 20 minutes for lunch. Some workers in Chrysler's or in the Buick plant working on piece rates, and hence eager to turn out the maximum production, will be seen eating with one hand and working with the other on certain jobs along the moving line.

A worker in Dept. 64 of the Dodge plant writes that "we are allowed to stop work about 15 minutes to bolt our lunch but we are not provided with a place to eat it. We either sit at our benches in the dusty room or, when there is nothing else for one to sit on, we have to sit on the floor. Besides they work the sweepers on another shift and they are sweeping the floors right under our noses while we are trying to eat our lunches." Those persons far removed from factory life who imagine that workers in this prosperous industry eat a leisurely meal in a spotless company cafeteria should pay a visit to some of these plants with their travelling canteens and their 15-20 minute lunch rushes.

The excessive fatigue and strain that comes from long hours, overtime, irregular hours, and the deafening noise and vibration in many sections of the plants not only increases accidents but undermines health. The Ford policy, some one who worked there has observed, is to do away with chairs and stools or anything that might give the worker a rest at intervals. Those who have worked in the plants agree that it is the legs that feel the fatigue most acutely. "The freedom to sit down occasionally" is one of the freedoms which the Ford worker covets most. The large percentage of workers who drop to sleep the second they hit the seat of a home-headed street car is further evidence of "that tired feeling" characteristic of the Ford worker who is not permitted to sit down even if his machine should happen to be idle.

The automobile companies "do not worry," as one safety director of a certain General Motors plant put it to the writer, about industrial diseases or the steady weakening of the worker's health arising out of months or years of work in the factory and the consequent exposure to poisons that slowly break down health. These diseases are "noncompensable" in the state of Michigan and hence do not entail payments by the employers as do accidents. Although most of the companies give the workers physical examinations when they start work they are given no check-up or examination when they leave or are discharged from the service of the company. One careful student who lived a summer among Ford workers in one of the poorer sections of Detroit found "several cases of men's health being ruined by work in the plants. . . . They received no compensation for it." Having risked their lives in the industry they were without any support from the state or the employer after they had broken down under the long strain and exposure to unhealthful working conditions.

In spite of the recognized hazards in the automobile industry no state has adopted a special set of health and safety rules for automobile workers. Such rules should, of course, include the prohibition of lead, benzol and wood alcohol; provide for the substitution of rubbing down with water instead of with gasoline or dry sandpaper; require specially constructed ventilating systems to get rid of fumes and dust; and above all adequately regulate the use of the spray machine. Several states have attempted legislation regulating the use of this machine but these regulations have served to legalize the process of spraying rather than to provide adequate specifications for room booths, air velocities and the type of material that can safely be handled by the workers.

CHAPTER X

FOOLING THE WORKERS

ESPECIALLY in the period of high labor turnover, during and following the World War, a large number of American corporations resorted to a variety of "welfare" schemes for the purpose of "increasing labor morale," developing plant loyalty, heightening efficiency, tying the men to the company, and offsetting agitation for trade unions. The metal trades generally have had their share in this development, and many automobile corporations have kept up with the latest styles in "industrial relations" activities. It is the purpose of this chapter to picture what some of the companies are doing by means of personnel schemes and "employee service" programs to keep their workers "sold" to the company and away from labor unions.

A recent survey of industrial welfare work, including that done by 19 representative auto manufacturing companies, made by the U. S. Bureau of Labor Statistics¹ notes a certain "tendency toward simplicity in personnel activities."² It points out that many of the elaborate personnel set-ups devised during the days of high labor turnover have disappeared, or have been modified.

It is also true that employee representation (company unionism) has made no headway in the industry for some years. Indeed the White Motor Co. of Cleveland has the only scheme—a "Shop Committee Plan"—which could be

¹ U. S. Bureau of Labor Statistics, *Health and Recreation Activities in Industrial Establishments*, 1926, Bulletin No. 458.

² *Automotive Industries*, Aug. 4, 1928, p. 163.

properly designated as a full-fledged company union.³ There has, in fact, been so little threat of labor organization in the industry in recent years, and turnover costs have been comparatively so low, that the motors corporations have not found it necessary to build up systems of "industrial democracy" to fool their workers with company-controlled "collective bargaining."

However, mutual aid and benefit associations have been created by a number of firms. Of the 19 establishments studied by the Bureau of Labor Statistics, 8 with about 47,000 employees, had installed these associations. About 90% of the workers were members. In two cases the membership was even compulsory.

Group insurance was found in use by 6 of the auto companies studied. In 5 of them the coverage was about 87% of the workers employed. Stock ownership, entertainments and recreational features are also common, particularly in plants located in the smaller centers such as South Bend, Pontiac, Oshawa and Racine.

General Motors "Employee Activities"

General Motors is perhaps the most enthusiastic believer in the efficacy of these devices which are planned through its Industrial Relations Section. Several of its manufacturing units issue employee magazines, and an employee stock ownership plan applies to all of them as does group insurance and a savings plan. Sports, recreations and other activities are used by many General Motors companies.

The Buick News is a typical General Motors employees' organ "published weekly in the interests of the entire Buick Family by the Personal Service Department," and distributed free to its members. The Buick Family is only one part of the great and widely advertised "General Motors Family"

³ See R. W. Dunn, *Company Unions* and *The Americanization of Labor*, for descriptions of typical company unions in other industries.

which, according to the company's publicity agents, includes all employees, distributors, dealers and even stockholders! Alfred P. Sloan, Morgan, and the Du Ponts are obviously the present heads of this "Family" of well over 200,000 souls.

Describing this Buick organ to some of his fellow employers, the Buick Director of Personal Service says that "We have formed the habit of referring to the employees of the company as 'The Big Buick Family' and of our employees' publication as our 'Family Paper.' This makes for closer intimacy and consequently for greater confidence on the part of all concerned," and "the opportunity provided by the paper of driving home a real message is of incalculable worth." In turning the pages of this paper to discover its "message" we find its purpose is to bind workers closer to the corporation, to make it the center of their interest and devotion. We read in the paper of "Buick bands," "assembly plant workers' frolics," "Feather Parties" held in the various Buick factories, of a "Buick Family Party" arranged by the Recreational Department, of an "inter-factory horse-shoe pitching tournament" and similar pastimes. We see pictures of "veterans" who "qualify for twenty-year emblems of service," of the new bowling hall, and even of separate workers; for example one worker under the following text: "This cheerful Factory No. 4 workman, Laddie Herbst, won't let a thing like the loss of his hearing stop him from doing his work very efficiently."

So much for the Buick shop paper. Let us look at another General Motors product, *The Cadillac Craftsman*, described as "An Organization Paper Issued Weekly in the Interest of the Employees of the Cadillac Motor Car Co." It contains the usual honeymoon and baby pictures, personal chit-chat, success and beauty hints, poetry exhorting workers to love their foremen, editorial blurbs glorifying loyalty, hard work, and the wonders of the Cadillac car; and accounts of the progress of the Factory Bowling League.

General Motors actively encourages its employees not only to own their own homes, but also to hold a limited amount of the company's preferred stock. Those who have been four months with the company may subscribe up to one-third of the previous year's wages. Some 3,000 employees, chiefly the salaried men, buy these shares every year. The corporation operates also a "savings and investment plan" which, according to President Sloan's "message to stockholders" in 1928, is calculated to help the employee "become a capitalist and a better citizen thereby. He is also a better employee."⁴

According to a Fisher Body worker the General Motors group insurance plan, which has received such generous publicity, is practically compulsory. "We discovered we had no choice about accepting the insurance. In all plants and all departments the foremen were instructed to get 100% results, and being anxious to keep their jobs they told us frankly that we either had to take the insurance or lose our jobs." The total General Motors group life insurance policy when signed in 1928 was expected to amount to nearly \$400,000,000. Sickness and accident insurance is also provided as a poor bribe to bind the workers to the corporation and to offset agitation for unions or for adequate state social insurance.

Recreation schemes are likewise regarded by the company as great "morale" builders. A General Motors safety director told the writer he would spend \$2,000 on a picnic for the men, but that it was worth easily ten times that much for the company. The same executive said that he knew how to deal with "agitators." He had worked in Dodge plants before and had learned there just how to handle "trouble-makers" who were always finding fault with conditions.

⁴ The General Motors Company has an extensive line of free literature describing its various schemes, including the Modern Housing Corporation used to help its employees own their own homes.

The Industrial Mutual Association of Flint is composed of thousands of workers from the various Buick, Chevrolet, Fisher Body, and A. C. Spark Plug plants together with employees from a few local companies. General Motors easily dominates the association and practically all its 80 trustees are General Motors men as well as the executive committee of nine. However, on both these committees sits a representative of the Manufacturers' Assn. of Flint which has supported the association both morally and financially.

Workers from all General Motors plants in Flint join this association by filing applications with the "time checker" in their departments. Dues are checked out of the pay envelope. The large club houses of the association have bowling alleys, billiard tables, dance floors and gymnasiums.

The official organ of this association is the *I. M. A. News*, "The Factory Employees' Own Magazine," an illustrated 12-page monthly journal calculated to generate "company spirit." In a recent number we find items dealing with the girls' ukulele club, the glee club, "Kiddies' May Parties," basketball teams and snappy reports and photographs on a bathing beauty contest conducted by the Flint Chamber of Commerce.

General Motors also pays "dividends for continuous service" and has 90 old men on its pension list. Speaking to the "Labor Mission" of the *London Daily Mail* in 1926 John J. Raskob, then Chairman of the Finance Committee of General Motors, said that the company had commemorated the "long and honorable terms of service" of these veterans "by naming 18 roads and gates in our plants after some of them." Raskob summed up the philosophy behind all company welfare when he added: "We believe the money paid in benefits is returned to us in the lower cost of production." And the report of the *Daily Mail* delegation concludes, after hearing the story of General Motors' and other companies' welfare practices: "They have introduced these schemes, not from lofty,

philanthropic motives but because the company realizes that competition is so keen that it must hold its employees."

Welfare Work of Other Companies

The Dodge and Chrysler companies, now merged, have taken a somewhat less extensive fling in welfare. The Chrysler employment manager conducts a "Good Cheer Fund," company picnics and a legal advice bureau. Dodge provides group life insurance, gun raffles, and free dances. A "welfare department" makes small emergency loans to employees and a "legal department" advises employees on certain legal matters.

The Studebaker Corporation has forced its workers to take out insurance under its group plan and urges them to join the Studebaker Athletic Association. This company also has a wage dividend plan to encourage "steady, true and capable employees." Payments, however, are forfeited "in case of disloyalty." But for the altogether "loyal workers," who never think or talk about labor organization, there are additional incentives in the shape of bronze, silver and even gold "service medals" for staying with the company for a period of years. Studebaker also has pensions and a stock purchase plan. It has maintained military bands, men's clubs, bowling teams, glee clubs and an "Annual Kiddies Day." *The Accelerator*, published by the athletic association, claims that in no other organization in the country can you get so much entertainment for a dollar. This organ carries pictures of employees, personal notes and self-help quotations from the writings of Charles Evans Hughes, Harvey S. Firestone, and Andrew Carnegie.

For those who may doubt the statement that this company forced its workers to take group insurance we submit the statement of a man who worked as a machine operator in the Detroit plant for a year and a half:

During the fall of 1925, most of the workers were able to get from three to five days' work per week. From December 18, 1925, to January 11, 1926, they were given a three weeks' vacation without pay. Shortly after they returned to work, the foreman of the department and a representative of the Co-operative Department began to solicit the workers to get them to buy group insurance. A certain amount of the money was to be deducted from the weekly checks of the employees and the Corporation was to contribute a certain amount toward the premiums as long as the men were in the employ of the company.

Many of the men in my department refused to take it as they needed every cent they could get to make up for lost time. The assistant superintendent was then delegated to speed up the selling campaign. Despite the pressure exerted by the foreman, the representative of the Co-operative Department and the assistant superintendent, about twenty-five per cent of the men refused to take the insurance.

They were all called into the superintendent's office and given a long oration on the many favors the Corporation had bestowed upon them in the past and how this was another effort on the part of the company to demonstrate its solicitude for the well-being of its employees. It ended with the remark that we would have to take the insurance in any of the plants of the city so we might as well take it here. And furthermore, if we did not like it we could get out. When he finished, all the men except one were pretty much cowed into accepting the insurance and signed up for it. The man who refused was asked to stay after the others left, and was later told that he would have to take the insurance or get fired. He took the insurance.⁵

The Packard Motor Car Co. prides itself on a number of special "service activities." There is first the Packard Senior League composed of employees who have been five years with the company. The object of this league is "to promote closer relations socially and industrially among the members; to bring about closer relations between the employees and the officials of the Packard company; to create harmony and prevent industrial unrest, and to encourage a spirit of unswerving loyalty to the Packard company and its officials."⁶

⁵ "Just Folks," Edward Hachtel, *Labor Age*, March, 1927.

⁶ Article II, Constitution and By-Laws of Packard Senior League.

Moonlight boat rides and other entertainments are among its activities. Three classes of members belong to this league—Junior, Senior and Life. “Junior members, with 5 to 10 years of service, wear a gold pin with a white enamel ‘V’, Senior members, with 10 to 25 years of service, wear a gold pin with the blue enamel ‘X’, and Life members, with 25 or more years of service, wear a gold pin with the numerals ‘25’ in red enamel.” Besides, “the company presents gold watches, appropriately engraved, to all employees completing ten years of service.” And a “service bonus”—a small lump sum of money—is given “in prosperous years” to workers with long service records. This serves as a sort of cheap bribe to tie the workers closer to the company. A similar type of bonus is used by other companies.

There is also the Packard Aid Association. Its members pay dues of \$1.40 a month and receive certain sickness and accident benefits. Members of this association are entitled to free group insurance. Like the Senior League this body is completely controlled by the company and is merely an extension of the company’s domination over the workers. Company officials have expressed the opinion that the cost of these activities is returned in the form of larger profits for the stockholders.

The Reo Motor Car Co. reports that it has induced some 60% of its employees to purchase their own homes, all of which is part of its general “Americanization” program. Also before putting an alien on the payroll, “he must assure the management that he wants to become an American citizen, adopt American habits of living, and obey the laws of the land.”

The same employer enthusiasm for 100% loyalty to company and country is reflected in the sort of “employee education” conducted by the McCord Radiator Co., which in June, 1928, handed its workers a card which, among other things, pledged the signer to become a “Broadcaster of American-

ism," and to agree "to do all within my power to combat every movement which attempts to destroy our present form of government." The worker who sent this card to the writer added: "This card was handed around for employees to sign after a speaker had spouted for half-an-hour on the benefits of being an American wage slave. The company gave us a half hour off to hear the speaker. All the workers signed it, for the few who demurred at first were asked so many questions and given such dirty looks by the foreman that they hurriedly got out their pencils and signed on the dotted line."

The Nash Motors Co. boasts that \$25,000,000 worth of its stock is owned by its employees, chiefly salaried and office men. It organizes mutual aid societies, provides athletic fields, tennis courts, bowling teams and orchestras, and hands out Christmas bonuses. The workers are practically compelled to join its clubs, for example the Ke-Nasha Club in Kenosha, the officers of which are controlled by the company and used as its agents in influencing local politics. A vice-president of the company reports that "these activities and the employees' organizations have the effect of drawing all the workers closer together and of inspiring a degree of loyalty to the company seldom found among industrial organizations." It is also intended obviously to inspire them against labor organization as the company will not employ known trade unionists and, like other companies, does its best to keep its workers immune to the appeals of unions.

The E. G. Budd Mfg. Co.'s monthly magazine, *The Buddette*, is possibly the most intimate little company magazine in the country. Its pages are full of the familiar chatter about the daily doings of the workers who are referred to as "Buddites." In one of its issues it invites the Detroit workers to become correspondents. It tells them that "the most interesting things to contribute are photos, sketches, items concerning Buddites, reports of weddings, the birth of

Junior Buddites, reports of various activities among Buddites, and in times of death and bereavement we can condole with our fellow workmen through its columns."

Advertisements in the *Budgette* tell the workers to "Show your appreciation and go to the Basket Ball Banquet. . . . See your Foreman for more information." The workers are asked to buy tickets for this banquet at \$2.50 a plate. All such athletic activities are thus conducted without expense to the company. They get the workers interested and the workers pay the bills. Stock ownership and a building and loan association with two million dollars in its treasury are also flourishing at the Philadelphia plant.

Even the notorious Briggs Manufacturing Co., Detroit body makers, uses some of these more subtle devices for defeating unionism. On being employed, workers automatically sign a slip obligating them as members of an employees' association and for a certain amount of insurance. When one worker inquired naïvely at the employment office for a copy of the by-laws of the association he was greeted with laughter and amazement. There were no by-laws. They finally handed him a leaflet describing the insurance scheme.

Ford Plays at Profit Sharing

"We do not believe in paternalism," and "paternalism has no place in industry" have been often repeated in recent years by Henry Ford, the man who was at one time considered the most paternalistic employer in the world.

The personnel policies of the Ford Motor Co. deserve more extensive treatment chiefly because this company has gained an international reputation for treating its workers better than the common run of corporations. And also because the time has long since passed when "King Henry" in person pinned ten-year "service medals" on his workers and sent welfare inspectors to snoop into their bank accounts,

their morals, and their church attendance.⁷ The situation is now quite different. We shall indicate the transition and its causes.

Ford earned his wide reputation for benevolence when he introduced an elaborate profit-sharing plan in 1914 in connection with his announcement of the famous \$5 minimum wage. Samuel M. Levin of the College of the City of Detroit, who has made a thorough study of these early profit-sharing schemes, says that the period from 1914 to 1918 in the Ford company might be properly designated "the era of good feeling."⁸ He adds:

In the period of 1918-1920 the good fellowship impulse seems to have reached its greatest height. Clubs, get-togethers, entertainments and dances filled the stage.

The so-called "inspection system" was also in full swing during this period, for Ford decided that all the workers who were to receive the new minimum of \$5 a day should be investigated first to determine their personal worthiness. It was then that a corps of investigators stuck their noses into the habits and homes of the Ford employees.

The second Ford scheme, introduced while the profit-sharing plan was still in operation, was the bonus announced on December 31, 1919. Under this plan lump sum bonuses were to be paid (at the end of the year) to employees according to their income and length of service. But this turned out to be very disappointing for the workers. As Prof. Levin puts it:

The purchasing power of the sum of the bonus and current rates [of wages] was, for the great mass of workers, much less than the \$5.00 minimum paid when profit sharing first began. In December, 1919, the cost of living in the city of Detroit had

⁷For a dramatic representation of this period see Paul Sifton's play, *The Belt*.

⁸"Ford Profit Sharing, 1914-1920" and "The End of Ford Profit Sharing," *Personnel Journal*, August and October, 1927.

climbed to 107.9% over that of December, 1914. This meant that the purchasing power of a dollar just about the time the bonus was coming out was 48.1% of what it had been five years earlier. In other words, a \$6.00 minimum would buy as much as \$2.88 had bought in 1914, the equivalent of 36 cents per hour for an eight-hour day. A \$50.00 bonus would mean an increase of only \$1.00 per week for a working year of 50 weeks. If this dollar is reckoned on the basis of its lower purchasing power in 1920 it amounts to about 48 cents per week or 1 cent extra per hour.

In 1919 the restiveness of the workers, and their tendency to drift to other firms, led Ford to declare the \$6 a day minimum, received after working sixty days with the company. The company wanted to give the impression to the men and to the public that this was an increase in real wages but the rise in the cost of living made it clear that it was not. Neither did the insignificant bonus fool the men. In fact, Ford paid the bonus for only two years, and after that, as Prof. Levin writes, "the bonus plan which started off auspiciously with the assurance that it was the intention of the company to continue the annual distribution of bonuses . . . seems to have fallen into decay. Surely the trouble was not in a dearth of earnings. Since 1921 the bonus has been given only to the older workers, that is, to those in the employ of the company when the first bonus went into effect, and in the form of an addition of an extra few cents to the wage rate. It has nothing to do with the new men."

With the bonus died most of Ford welfare. The reasons for the abandonment of the schemes were, according to Prof. Levin: the opposition of certain Ford executives, the skepticism of Ford himself and his repudiation of the plan in its essentials, the tremendous increase in the scope of the Ford industrial operations, the basic unsoundness of the plan in its economic and sociological features, the complexity and cost of the plan, and finally its failure to win the loyalties and adherence of the workers. All of these facts contributed,

but particularly the fact that the margin between the Ford wages and the wages paid in other shops was so small that the men protested more and more loudly against the company meddling with their personal affairs.

The Remains of Ford Welfare

To-day there is nothing left except certain remnants which may be briefly described. First a meager Sociological Department, with a staff of half a dozen men in the office in which, according to a recent Ford booklet, "there is no charity, no red tape, and no uplift." It makes loans to employees, gives them real estate, and—upon request—matrimonial advice. It investigates cases of sickness, destitution and unexcused absences. It is also, theoretically, the department assigned to listen to such grievances as the workers may bring *as individuals*. For the booklet says, "Briefly stated the department tries to act as a link between employer and employee where they may meet on common ground and settle any real or fancied grievances." But a Ford student-worker, after carefully investigating this department, writes: "I became convinced through my talks with the workers that very many of them, perhaps the majority, did not know of the existence of the department, and did not know where to turn for help or advice."

Then there is a hard-boiled personnel department, one of the executives of which admits that it transfers men "when it benefits the company," not, as Ford's advertising booklets suggest, whenever the man finds the monotony of his job getting on his nerves. The transfer department is really attached to the medical staff, and consists of only two men, who can scarcely be said to begin to deal with the delicate task of directing 120,000 Ford workers into the jobs for which they are best fitted! The men are shifted, almost invariably, to worse jobs, and there is, according to all observers, no intelligence or system to the transfer practice.

The Ford commissary stores have been much discussed. There the workers may purchase certain groceries, shoes, drugs and dry goods at somewhat lower prices than in the stores of the city. Still, because he buys in such wholesale quantities, Ford can make a tidy profit from these enterprises.⁹

Finally there is the scheme which offers employees an opportunity to put their savings into special non-negotiable investment certificates up to one-third of the amount of their pay. No employee may invest more than the equivalent of a year's wages from the company. This plan, which is rigidly controlled by the company, does not mean that the workers generally share in the Ford prosperity. Only a small fraction of the workers are reached by it. It is apparent from the restrictive character of the plan that Ford is not interested in having his workers invest much. But it suits his purpose if they invest just enough to tie them psychologically to the company. The plan is but another plain "business proposition" devised originally to help decrease labor turnover.

This exhausts the catalogue of Ford welfare in 1929. There are no pensions, no mutual aid societies, no employees' representation, no social affairs, none of the many devices introduced with such a blare of trumpets in 1914.

Perhaps one other Ford organization will be missed by those who are acquainted with Ford plants—the Service Department. This could scarcely be classified as related in any way to workers' welfare. In spite of its name this department, in the opinion of many Ford workers, may perform some service for the company, but it certainly does not serve the men except to drive them and, in lieu of piece rates, to speed them up. One student-worker contends that it is probably the cause of more irritation and antagonism toward

⁹ J. F. Shafer, "The Ford Stores, a New Departure in Retailing," *Harvard Business Review*, April, 1928.

the company than any other Ford institution. "I could find no workmen," he says, "who would say a word in its favor." Service Department agents are scattered at the gates and about the plants to check and control the movements of the workers, who naturally refer to them as "spotters" and "hunting dogs." For they often pounce upon workers when they think they are performing their tasks improperly. They may punish the worker by reprimand, by transfer to another department, or by discharge. When work is slack and the company wants to get rid of workers the service men are particularly vigilant, picking their victims right and left. Service Department men have also interfered with newsboys and newsgirls selling workers' papers, destroyed these papers, and had their sellers arrested by the Fordson police. They have testified in court that they were responsible for the arrest of persons distributing workers' leaflets in front of Ford plants. Wherever Ford employees gather after work these spies are on the job reporting acts and conversations to the company. This system of spying and intimidation is continually growing more ruthless.

These men stand at the gates and bully the workers as they go in. The writer witnessed the bulldozing antics of one of them at a River Rouge employees' entrance early in 1928. The service man had bawled out two innocent workers in a most insulting manner before I had time to inquire the way to the visitors' entrance. Immediately his voice mellowed significantly, for persons coming to the Ford *visitors'* entrance are to be drowned in smiles and pleasant words.

The service men have also been useful to the company in practically forcing the workers to contribute to the Detroit Community Fund, the local charity chest. Some workers who refused to contribute in 1925 were investigated by these company stool pigeons. They were likewise used by the company in securing subscriptions to the *Dearborn Independent* (Ford's personal organ—which died on Dec. 31,

1927). Workers were expected to take at least two subscriptions each to this Jew-baiting organ. If they refused, the chances of their being discharged were much greater than were the chances of those who subscribed.

The departments we have just described are the mediums through which the present Ford labor policy is carried out. As one worker puts it, the policy of the company is still: "We know what's good for you. We don't give a damn what you think." One is inclined to agree with this worker when he adds: "From the point of view of personnel management the plant is run on about the same level of civilization and efficiency as a first-rate Oriental satrapy with Henry Ford as the King of Kings; the man who can do no wrong."

CHAPTER XI

THE EMPLOYERS' OFFENSIVE

Associations

ALTHOUGH any one of the automobile corporations could easily stand alone against such negligible strength as union labor has secured in the industry to-day, the owners of the industry have found it expedient to insure themselves by organizing what might be called "unions of employers." Many of these are, of course, created for other purposes, but whenever unionism threatens, we find them aggressively attacking the workers in their efforts to organize.

Two national organizations that have played their part in keeping the industry non-union are the group known as the National Automobile Chamber of Commerce, which includes nearly all the car, truck and bus manufacturers except Ford; and the distributors' body, the National Automobile Dealers' Association. There is also the Motor and Equipment Association, a recent consolidation of the Motor and Accessory Manufacturers' Association and the Automotive Equipment Association. It includes virtually all the manufacturers of automotive products with the exception of those making finished vehicles who are in the National Automobile Chamber of Commerce. Some automobile companies are also associated with the National Metal Trades Association which has a long record as a vigorous enemy of organized labor. It is one of the most belligerent of the great national employers' organizations and its strike-breaking procedure is one of the most efficient in a country where strike-breaking has become an art. Other companies are affiliated to the National

Founders' Association, an equally aggressive anti-labor organization.¹

The National Automobile Dealers' Association took an aggressive stand against organized labor in connection with moves made by the Machinists' Union to organize mechanics in service stations, garages and repair shops in 1926. After the organizing drive got under way the general manager of the N. A. D. A. sent a bulletin to its members which shows clearly the alarm of the dealers and the relation they see between the organization of these mechanics and the organization of workers in the large manufacturing establishments. The bulletin read in part:

The real object behind the unionization movement is to completely organize the automobile manufacturing plants. The unions feel that if they can gain a foothold in the dealer service stations and in the repair shops, they can compel recognition by automobile manufacturers of unions of the workmen in the automobile plants. The National Automobile Chamber of Commerce has officially gone on record opposing the union labor policy. Individual manufacturers have likewise notified their dealers of the necessity of maintaining non-union shops.

After this statement of policy the bulletin urges:

It is very important that you find out immediately what the extent of the union activity is in your city. Have every dealer complete a list of the names and addresses of service station employees, and the *length of service of each*. This information is vital in determining identity of agitators. Men employed in the last three months or the last six months should be specially investigated.

Following these explicit instructions concerning methods of blacklisting, the bulletin counsels firmness against the union:

¹ For a description of the activities of these organizations, see C. E. Bonnett's *Employers' Associations in the United States* and R. W. Dunn's *The Americanization of Labor*.

If any delegation of union men calls upon any dealer or dealers, they should be refused interview. . . . If you are being campaigned in your city vigorously let us know immediately. We will be prepared to send some one in to investigate the situation and assist you through your troubles.

The N. A. D. A. likewise conducts an extensive espionage system serving its members with reports on union meetings, movements of organizers and other labor activities. In one of its bulletins containing some of this spy information, it attempts to inform its members concerning union strategy in the following words:

While we are as yet without confirmation that agitation among factory employees has actually started, it has been decided by the A. F. of L. to centralize time and effort to organize the tool and die shops of automobile manufacturing plants, as well as some departments where real mechanical skill is required. These departments include other plants specializing in essential automobile parts such as transmissions, etc.

The attitude of this association toward unions is further indicated by the attitude of its general manager who declared that Ford was right when he recognized "the necessity of employer-controlled workmen." In one of his confidential bulletins to members, dated May 17, 1926, he informed them that "we have created a special investigation bureau to be of help to you." This bureau was created to spy on union organizers and their movements.

One influential local employers' body serving the interests of the automobile corporations against their unorganized workers is the Employment Managers' Club of Detroit. Its members meet once a month chiefly for the purpose of exchanging information and reaching agreements on wage rates, hiring practices and personnel relations. In case one company has "labor trouble" its employment manager looks to the others for advice and concrete help. Workers are sometimes "loaned" by one company to another to act as strike-

breakers. Mutual problems are discussed at the meetings and a general spirit of coöperation is developed among the men who formulate the labor policies of the Detroit plants.

Less exclusively concerned with the automobile business, but no less outspoken in opposing the organizations of workers, are such state and city organizations of employers as the Michigan Manufacturers' Association, the Manufacturers' Association of Flint, the Pontiac Manufacturers' Association, and the Employers' Association of Detroit. Among the directors of the Michigan state association, which maintains a powerful lobby against labor measures at the state capital, are representatives of General Motors and Dodge.

The 26-year-old Employers' Association of Detroit has for its motto: "Detroit is Detroit because of the Open Shop." It is a powerful organization which numbers among its members employers in every line of business, but it gives special attention to the labor situation in the metal trades and the automobile establishments of that city. It has been very active in its efforts to break up organizations of workers, and in its annual reports it describes in detail its successful efforts to defeat the Machinists' Union, the A. F. of L. generally, and the independent Auto Workers' Union. A few years ago this employers' body raised a "war chest" of \$100,000 to break union labor in the building trades. (One of the Fisher brothers of the Fisher Body Co. contributed \$25,000.) There is no doubt that a much larger sum could be raised over night to fight automobile unionization should it ever seriously threaten. As the president of the Association puts it, "Open Shop in Detroit has had and will have adequate financial support." One of the chief activities of this association is to operate a free employment bureau in competition with the one run by the State Department of Labor and Industry. This employment office, founded in 1903 to enlist strikebreakers, functions chiefly when there is a scarcity of skilled labor. The gen-

eral manager, in his report for the year 1927, says that "when men are too plentiful the employment office of each plant is surrounded and our bureau is not required to supply ordinary labor." And the president of the Association declares that "this bureau has placed nearly 700,000 men in jobs that were sold them on the principle of Open Shop." The bureau has helped to break many strikes in automobile plants.

This employers' association coöperated with the more inclusive Citizens' Committee of Detroit in attacking the A. F. of L. during its convention in Detroit in 1926. This Citizens' Committee, sponsored and fully supported by the Detroit Board of Commerce, claims the endorsement of some 50 local business men's associations and is especially interested in opposing unionism in the building trades. At the time of the convention it declared that the staid and respectable labor leaders attending the convention were "against the government." It attempted to prevent them from speaking in Detroit churches lest they might persuade the auto workers to join a union.

In 1927 this committee appealed to the manufacturers and business men to contribute in amounts ranging from \$50 to \$5,000 to a fund "to maintain the American plan of employment in Detroit,—in other words, to keep Detroit free from union labor control. The American Federation of Labor is trying to organize our factories and trades. If they are successful it means untold hardships for our workmen and the expenditure of millions of dollars by our employers." And in a pamphlet entitled, "Do You Care?", it declares that the A. F. of L. "has no intention of stopping with the unionization of the building trades. Next will come the unionization of Detroit's factory workers. Here is the big prize for which Monopoly [the Committee often refers to organized labor with this terrifying noun] has laid its plans." Such appeals as this are calculated to frighten the business people

of Detroit, including the manufacturers, into contributing to the Citizens' Committee.

Assisting energetically in this campaign against labor are such local periodicals as *The Detroiter*, organ of the Detroit Board of Commerce, and the *Detroit Saturday Night*, as well as the regular daily newspapers. One must include also as instruments in the employers' offensive against the workers the dozens of vigorous local and national trade and manufacturing journals, all of them acting exclusively as "loud speakers" for employers' propaganda.

While clamoring against the organization of labor and often expressing their determination that "Detroit shall not be in the grip of trade union leaders" all these employers' organizations emphasize and work for the iron solidarity of employers. They give full and free coöperation to all their members in their battles with union labor. They will undoubtedly render much more specific and practical coöperation in the future when class lines tighten and labor begins to organize—as employers have already organized—in the automotive industries.

Company Opposition to Unions

In addition to expressing their organized opposition to all labor unions through their associations, the manufacturers of motor cars have as individual companies manifested very clearly their hatred of unions. The attitude of Ford is, of course, well known. The official booklet of the company, *The Ford Industries*, makes it abundantly clear!

The industrial relationship between the Ford Motor Company and its employees is purely individual, and every policy is designed with the intention of keeping it so.

Shop committees, unions or labor leaders are unnecessary because there is nothing to argue about except in individual cases and these are settled man to man.

Ford has repeatedly expressed the same policy in his pub-

lished works. As one who worked closely with him for several years put it: "Ford does not tolerate unions in his plants, and while he usually has the support of union labor he now rejoices every time the unions get a blow. . . . He rejoices too when the courts decide against labor." Another confidant of Ford says: "If you ask him about labor unions he won't answer you. He's likely to reply by asking you how you like the new Ford car." And a Ford personnel official has explained that "mere membership" in a union would not be sufficient cause for discrimination and discharge, but that "propagandizing" certainly would. This is the conventional non-union Open Shop position identical with that of all automobile employers as well as the U. S. Steel Corporation, the Western Union Telegraph Company, the Standard Oil Company and hundreds of American companies who continually fight any semblance of real organization among their workers. The same Ford personnel man boasted openly that he had discovered a nest of "Bolsheviki" propaganda in the plant and had promptly fired the "conspirators," as he called them, for having suggested organization to their fellow workers.

Charles W. Nash, president of the Nash Motors Co., is also aggressively anti-union. He once told a group of his men that if labor ever tried to organize his plants he would close them up. Men talking unionism in these plants and in those of the Seaman Body Co., a Nash subsidiary, have been discharged. And Nash in 1928 contributed generously to an employers' "slush fund" which was raised in Kenosha, Wis., in the hope of driving an A. F. of L. hosiery union out of the city. The same general policy toward unions is characteristic of all the plants mentioned in this book.

The General Motors Co. with its well-advertised "big family" relationship, has, like other companies backed by the House of Morgan, maintained a consistently anti-union policy; although at least one of its units, the Fisher Body

Co., before it was absorbed in General Motors, was more reasonably inclined toward union labor and dealt with shop committees controlled by the Auto Workers' Union. But under Morgan-Du Pont domination the company has followed a straight anti-union policy. To-day the Fisher plants are barred to all visitors. It was explained to the writer by a company functionary that it "wouldn't do any good to let people go through." (Body plants, especially the "Duco" spraying departments, are not the most pleasant places for outsiders to inspect.) And the big Fisher plant at Flint has refused to permit even industrial secretaries of the Y. W. C. A. to look through its departments. As the manager explained, "Fisher Body is interested only in production."

The anti-union policy of General Motors extends to the companies furnishing it with raw materials. For instance, in testimony before a United States Senate Committee investigating the coal miners' strike in the spring of 1928, representatives of the United Mine Workers of America declared that General Motors had compelled its coal-supplying clients to break off relations with the United Mine Workers. As the head of one of the larger companies put it to the miners' officials: "I would like to open my mines and go ahead and pay that wage [the union scale]. . . . Yesterday I was told by the purchasing agent of General Motors that I cannot sign the contract on any basis at all and that I must conform to the policy of the Pittsburgh Coal Co., or they propose to ruin me." As the most powerful corporation in the automobile industry, General Motors is undoubtedly the strongest foe union labor will have to face in organizing the industry. This company may be counted on to fight every effort of every union—no matter what its stamp or philosophy—to gain collective bargaining for the workers.

The attitude of the companies is further illustrated not only in their general statements against unionism, and in

their associations which flood the country with propaganda against union labor, but in their occasional repressive resistance to organization moves of any kind. Agitation for collective action by the workers is always dealt with "firmly." Workers have been fired on the slightest suspicion of contributing to the shop papers issued by the Workers' Party. In some instances, in fact, a worker quite innocent of any connection with the paper has been discharged on mere suspicion. And the foremen in some of the Dodge plants, for example, in their anxiety to find the "agitator" have stooped to searching workers' coat pockets and spying on the men in their noon-hour conversations.

The distribution of the shop papers has also been frequently interfered with by the use of the state power of the employers—by arrests, police edicts, outrages of company and city detectives, and injunctions. Discrimination by local police against those who are trying to educate the workers to a realization of their exploitation is frequent and undisguised. For example, when several workers from other plants distributed a shop paper in front of a Durant Motor Co. plant in the spring of 1926, they were arrested by company and local police and held under \$5,000 bail on charges of disorderly conduct, distributing literature tending to incite a breach of the peace, scattering papers on sidewalks, and interfering with the plant employees. However, a few days before leaflets advertising real estate and patent medicines had been freely distributed in front of the plant without any police interference.

When workers tried to sell copies of *The Ford Worker* in front of the Ford plants the distributors were arrested and copies of the paper seized and destroyed. At other times when this paper was sold near, but not on, the Ford property, the police of the town of Fordson were used to drive the newsboys from the streets, while the selling of the regular capitalist papers went on quite undisturbed. The

police told those selling the workers' paper that Ford did not approve of their activity!

Not only have the distributors of the shop papers, interested in giving the workers their first taste of union propaganda, been driven away and arrested by the police of the companies. Organizers for the Auto Workers' Union have been similarly treated. Their meetings near the plants have frequently been broken up. In front of Chevrolet plants the guards have even locked the gates to prevent workers from leaving by entrances adjacent to meeting places. The sale of the *Auto Workers' News* has been at various times prevented in front of several plants in Detroit, Flint, Pontiac, Lansing and Toledo. Union speakers attempting to address meetings near Fisher Body plants have been arrested by order of plant superintendents, while Dodge Bros. used its political influence over a local council in 1927 to stop all street speaking by union organizers before its Hamtramck plant. To prevent the organization of unions the corporations have often used their government. The state power of the employers has been repeatedly turned against workers trying to organize.

Under-cover Men

Along with other repressive measures goes the employment of labor spies. As no really serious labor organizing campaign has recently threatened the automobile plants there has been no unusual employment of "industrial auxiliary" company operatives to spy on the workers. However, certain minor attempts to organize the industry have been met with the "investigator," "industrial operative," "under-cover man," "conciliator," and the "emissary of constructive thoughts," to use a few of the terms commonly applied by employers to the labor spy.²

When the Machinists' Union was engaged in organizing

² See Sidney Howard, *The Labor Spy*,

the automobile service station mechanics in the Chicago district, the Chicago Automobile Trades Assn. promptly inserted advertisements in the newspapers for workers who, upon answering them, were asked to act as spies on the organizing attempts of the union. The Machinists' Union met this sort of opposition wherever it attempted to organize the car dealers who are under the thumb of the great automobile companies. The National Automobile Dealers' Assn. and such state employers' bodies as the Washington 'Automotive Trade Assn. of Seattle have also used labor espionage against the Machinists' Union.

The writer has found in recent years that Willys-Overland, Chrysler, Dodge, General Motors, Studebaker, Pierce-Arrow, Timken-Detroit Axle, E. J. Budd, Durant Motors and others have all employed such nationally known spy agencies as the Corporations Auxiliary Co. and the Sherman Corporation. The operatives were instructed wherever possible to work within the local unions either of automobile workers or machinists. Companies not employing these outside agencies usually operate their own secret service system. As we have observed, the Service Department performs this function in the Ford plants. A Ford employment official intimated in a talk in 1928 that this department was a useful spy agency.

When the Workers' (Communist) Party made efforts to organize groups in Detroit plants in 1926 the auto companies turned a willing ear to the solicitations of such agencies as Allied Industries, Inc., and the General Production Co., Detroit concerns supplying labor under-cover operatives. The Chrysler Corp., for example, made use of these agencies in ridding its plants of potential agitators, and within a few months four spies were unearthed in motor plant nuclei. Copies of the spies' reports were also received by local employers' associations, such as the local Citizens' Committee, and the secretary of that body made use of their

revelations in addresses before local business men's groups.

The operations of the spy system in the Durant factories are described by a worker in 1926:

Every morning when the unemployed swarm into the employment office we find two or three spies talking unionism, socialism and radicalism. Here's how it's done. Two of them stay at the doors as the workers come in and talk socialism to attract the workers' attention. Later when the office is about full they talk unionism and the need of organization. If any one becomes interested, or shows any favorable leanings, he is at once reported to the employment manager and does not get hired. They also have spies in the departments, particularly in those that show dissatisfaction. Lately we received news that there are touring spies in all departments. For instance, one has been in the trucking department for a couple of days, and was later transferred to the spraying department to see if there were any "trouble makers" there.

Early in 1929, the Automobile Workers' Industrial Union of Canada uncovered two spies in its local in the Border Cities. Their reports had resulted in the discharge of 15 union men from Ford plants in Canada. The spies were operatives of the Corporations Auxiliary Co., and had also been used in the Canadian plants of Chrysler Motors and the McCord Radiator Co.

The close relation of the automobile to the airplane and related industries connected with the making of shells and other war supplies adds further significance to the active spy systems maintained by the companies which are occasionally supplemented by the United States Military Intelligence Service. On occasions when agitation among the workers has been threatening, War Department men have conferred with the companies as to ways and means of quieting all labor disturbances and firing all workers who talk union. The Federal authorities, as well as the employers, want to be sure that their labor will be thoroughly strike-proof and patriotic during the next imperialist war.

CHAPTER XII

EFFORTS TO UNITE THE WORKERS

WITH working conditions as unsatisfactory as we have described them and with employers solidly united to further their own interests and the interests of stockholders, it is imperative that the workers organize. The absolutely necessary first step toward bettering workers' conditions is a fighting labor union. This point need not be stressed for the worker reader. Every worker who is not drugged by employers' propaganda knows this. Our purpose in this chapter, however, is not to dwell on the necessity for a union, but merely to review some of the attempts that have been made to organize the workers.

For convenience we may divide the efforts to organize the auto workers according to the groups that have made them. We shall begin with those made recently by the American Federation of Labor, referring later to the earlier organization of the workers both within and outside the A. F. of L.

A. F. of L. Attempts

Not until 1926 did the A. F. of L., as a whole, seriously discuss the organization of automobile workers. The industry was producing at the rate of four and a half million cars and trucks annually in both 1925 and 1926, and the time was considered ripe for approaching the workers while the boom lasted. At first it was thought that the Metal Trades Department of the A. F. of L. might be able to handle the job alone. This plan was abandoned. They said funds were lacking, and the Metal Trades Department was

more interested at that moment in concentrating on metal plants where the percentage of skilled workers was larger than in the automobile industry.

With the calling of the A. F. of L. convention to meet in Detroit in 1926 preliminary plans were drawn for a general campaign. The convention, after a brief discussion, passed a resolution calling for "a conference of all national and international organizations interested in the automobile industry for the purpose of working out details to inaugurate a general organizing campaign among the workers of that industry."

The resolution provoked much comment in the press both locally and nationally. The delegates to the convention took a trip through a Ford plant and publicly deplored the monotony of the jobs along the belt. The press prophesied "a struggle of Titans" and expressed the opinion that labor was "taking a bold course." The Detroit employers thundered their defiance and their associations attempted to prevent the convention delegates from preaching in local pulpits.

When the smoke of the verbal battle had cleared away, the 17 A. F. of L. craft unions, claiming jurisdiction over auto workers, were called into conference to agree upon a line of policy. The first conference was held on December 2, 1926. It decided to convene the representatives of the various interested international unions and recommended that each of these representatives have full authority to waive all jurisdictional claims. Even at the first conference it was found that some of the unions affected were indifferent to the general organization project chiefly because of this waiving of jurisdictional claims.

A second conference of executives of the various international unions was held on March 24, 1927. It was agreed to suspend jurisdictional claims for the workers engaged in all the so-called "repetitive" and unskilled processes in the

plants so that temporary local labor unions might be formed for them, directly affiliated with the A. F. of L.¹ The Federation was to "appoint a leader to direct the work in the campaign." Organizers of the craft unions were to coöperate in conducting a general membership drive. Finally, it was decided to eliminate the accessories plants and confine the drive to plants producing finished motor vehicles.

What followed this conference can best be told in the words of James O'Connell, President of the Metal Trades Department of the A. F. of L. in his report to the Twentieth Annual Convention of the Metal Trades Department in November, 1928. The very essence of A. F. of L. "strategy" in organizing the unorganized is contained in his statement:

A plan was worked out and an organizer of the A. F. of L. placed in charge of the work. He made an intensive survey of the industry but the difficulties encountered were so tremendous that the question of attempting to organize the employees was temporarily laid aside for the purpose of trying to reach the desired result through a different angle and direction.

What was this "angle and direction"? Here we find an excellent example of the new "economic statesmanship" of the A. F. of L. O'Connell reported:

The President of the American Federation of Labor . . . decided to try to reach the officials of some of the automobile manufacturing companies with a view to inducing them to enter into a conference with us for the purpose of trying to negotiate an understanding that might result in lessening the opposition on the part of the officials of these companies to their employees being organized.

¹ These local auto workers' unions were to be but temporary expedients. The agreement expressly provided: "It shall be the definite aim and avowed purpose of the A. F. of L. to bring about the transfer of those organized in the automobile industry to the jurisdiction of the respective national and international unions, this transfer to be effected as speedily as possible."

But this novel method of organizing the unorganized did not seem to work. The corporations somehow did not surrender to these offers of peace and good will! O'Connell concludes:

Correspondence has taken place, and attempts have been made to secure appointments for conferences, but without any effective result. The campaign to organize the automobile workers, initiated two years ago by us, has not developed to the extent we had hoped it would.

Indeed it had not developed at all. But O'Connell and Pres. Green of the A. F. of L. are still hopeful:

While we have not given up hope that sooner or later we may be able to reach some of these employers who will be willing to sit down and confer with us, up to the present we are not in a position to even report progress.

This is the way the A. F. of L. undertook to organize automobile workers. No mass meetings were held for them. Agitation was not carried on in front of the plants. No special union literature, dealing with automobile workers' problems, was prepared. No real effort was made to interest local labor movements. All the A. F. of L. strategists could think of was a conference with corporation executives even before a single worker was organized. It is not difficult to imagine why the corporations could not be "reached" even by these conciliatory and "businesslike" methods of the A. F. of L. officials.

Nothing further has been heard of the campaign since this failure to get a conference with the corporations. No mention of plans to organize auto workers was made at the 1928 convention of the A. F. of L. The whole "plan" has apparently been abandoned. Just as in 1920 Big Business, directed by J. P. Morgan & Co., was able to keep unions out of the steel towns, so in 1927 the same banking interests, controlling the policies of General Motors, have easily suc-

ceeded in scaring off A. F. of L. unions from a concerted attack on the automobile centers.

That the A. F. of L. has been completely over-awed by this line-up of employers can be observed from the fact that its organization arguments have been repeatedly addressed more to the employers than to the workers. One of these arguments has been the conventional one that radical agitators will hurt their business. It is, therefore, safer to deal with regular and "responsible" labor. As a Vice President of one international union put it: "It is pretty generally recognized that organization of labor under wise leadership is a stabilizing force that industry needs. Without responsible leadership from its own ranks, labor would be exposed to the wiles of professional agitators of every stripe."

And again, bidding for corporation recognition, another union official declared: "The American trade union, working in coöperation with an American employer, with true American respect for the right of all citizens, would be able to produce a cheaper and better Ford car or any other American product, than any un-American Plan employers will ever be able to produce with their Bolshevik plan of ownership of human beings engaged in American industry."

Just what this "Bolshevik plan" was the official did not explain, but it is clear from his phrasing that he is trying to elicit patriotic, anti-Red responses in the employers he was addressing. In short his message to the great corporations was: "Recognize us or the Reds will get you."

In any event the attempts of the A. F. of L. leaders to convince the manufacturers that their interests would best be served by helping the Federation to organize the industry failed completely. The employers are satisfied that they can control their labor and keep it free from "Red influences" without the services of Federation officials. They regard themselves as impregnable against the assaults of all unions whether radical or conservative.

The confusion and inconsistency of A. F. of L. policies with respect to the organization of automobile workers may be illustrated by an incident that occurred in 1926. During the period when locals of the Machinists' Union and the Upholsterers' Union, both A. F. of L. bodies, were trying to organize employees of the Durant Motor Co. and were encountering the stiffest opposition, the following item appeared in the *Union Labor Messenger*, "Official Organ of the Essex Trades Council Affiliated with the American Federation of Labor," published in Newark, N. J., and managed by Henry F. Hilfers, Secretary of the New Jersey State Federation of Labor:

The Durant Motor Company, Inc., is a nationally known concern and enjoys a position of prestige among the automobile manufacturing plants of America and European countries. The factories of the Durant Corporation are large and modernly equipped—their hundreds of employees are paid the best of wages and the co-operation which exists between employer and employee is very impressive and leaves no doubt in the mind of an impartial observer as to why the quality of Durant products is so high and of such unexcelled service. . . . Officials of the corporation are leaders in the art of automobile production and know thoroughly how to keep pace with the industry and remain in front of all competition. They are held in high esteem as citizens as well as manufacturers and business men and figure prominently in the commercial and industrial life of their community. *The Durant Corporation has always been a staunch friend of union men and organized labor will find this firm friendly at all times.* It is, therefore, a great pleasure indeed to lend our endorsement to such a worthy institution as this one, and we do it heartily. (Italics mine.—R. W. D.)

This item was merely one of the conventional "puffs" given to any corporation, union or anti-union, that made a contribution to the manager of the *Union Labor Messenger*.²

² Somewhat later (1927) Hilfers admitted that while he was secretary of the state federation he had received over \$100,000 from Open Shop corporations in the form of donations and "complimentary advertisements." Durant, Du Pont and similar corporations were cited as substantial contributors to this fund.

Here was an actual news "blurb" appearing as a definite endorsement of the labor policies of an anti-union corporation at the very moment when it was vigorously opposing the organization of its workers by discharge, labor spies and discrimination. It is interesting to note that in the same month that this story appeared the workers in the Durant plants were forced to work 11½ hours a night, and some of the day men were working even 7 days a week from 10 to 14 hours a day.

In Michigan also we find no evidence that the local labor movement has taken any real steps to help unionize auto workers. Out of 500,000 wage earners in the State of Michigan the State Federation reports only 26,000 organized, and the central labor union of Detroit represents only a few thousand workers, chiefly craftsmen in the building trades and small retail dealers as in the cleaning and dyeing trades. The Michigan State Federation completely evades the question of organizing auto workers. Not a single word on this subject is to be found in the reports of the several officers of the federation to the convention of that body in 1928. The Flint Federation of Labor, instead of rendering help to the Auto Workers' Union in its efforts to organize the Buick workers in 1928, issued a vicious pamphlet entitled *Americanism versus Communism* in which it gives a list of the business concerns which "have coöperated financially with the Flint Federation of Labor in their campaign against Communism." The list of these firms includes A. C. Spark Plug Co., Marvel Carburetor Co. and Buick Motor Co. The policy of this local federation is similar to that of reactionary central bodies elsewhere in the United States who seek to attract support from large manufacturers by attacking radical workers. Such tactics have not resulted in the organization of a single plant. Instead they merely divide and confuse the workers and render them powerless before the organized might of the employers.

The Machinists' Union

The International Association of Machinists, which was the logical group in the A. F. of L. to interest itself in the unionization of automobile workers, has confined its chief activity to a subsidiary branch of the industry. Being a craft union with jurisdiction over all machinists in the automobile and other industries, it takes in certain mechanics employed not only in the production but also in the repair and maintenance of cars. It has made some efforts to organize garage and repair men. In this move it immediately encountered the bitter resistance of the manufacturers and their associations.

An instance recorded in the *Machinists' Monthly Journal*, August, 1926, will illustrate the tactics used by the employers. The auto mechanics in Chicago Heights, Illinois, had organized into a lodge of the machinists. Whereupon the National Automobile Chamber of Commerce opened war upon them. The fight was led locally by the Chicago Auto Trades Association affiliated with the Chicago Manufacturers' Association. The head of the latter association came to the city, conferred with the local auto dealers' association, and insisted that its members break with the union and make no more agreements with it. Whereupon the association notified the union that on a certain date all service stations would be operated on a non-union basis and would employ no union employees. Even before the association had sent this notice, the local Ford dealer, acting on instructions from Detroit, called in his workers and told them they could not work after a certain date if they were members of the union. The union was forced to call a strike against this and all the other firms, for all refused to confer with it. A few days later a representative of the Chicago distributor of each make of cars appeared in the local service stations with a yellow dog (individual) contract which read in part: "that said employee

is not a member of any labor union . . . [and] will not become a member of any labor unions."

All the mechanics, car washers and even stenographers refused to sign these contracts. Some of the dealers gave in at this point and agreed to treat with the union while others locked out all their employees. The Ford agency was particularly brutal in its tactics. It imported strike-breakers, guards, sluggers and gunmen and also obtained an injunction against picketing. Where the employers put up such an offensive the union was beaten. The Ford company and the other great producing companies were determined that their dealers' service stations should not be organized and in many cases they notified dealers that their licenses would be canceled if they allowed the unionization of their establishments. They ordered that union men be fired.

In spite of this attack the Machinists' Union did succeed in lining up garage and repair station men in certain cities. In 1928, they claimed that some 2,700 garages had been organized. Since there are about 150,000 garages, repair shops and dealers' service stations in the country the union has made a very small dent in this broad non-union territory.

But the Machinists have not made even the smallest permanent dent in the much more formidable task of enlisting their own craftsmen in the plants that manufacture motor cars. In 1919 the union claimed from 7,000 to 10,000 members in Detroit, most of them in automobile factories or the metal trades branches of the auto industry. At that time the union conducted some noteworthy strikes such as the one against the Timken-Detroit Axle Co., which involved some 4,500 workers and cost the company a heavy loss of customers and millions of dollars. The union maintained a hold on the loyalties of thousands of these workers until the slump of 1920-21. In other cities it conducted large strikes, notably in Toledo in 1919 against the Willys-Overland Co. This company had been working 44 hours when suddenly it

declared the 48-hour week and locked out all machinists who refused to accept it. It also began to reduce wages. The 13,000 workers in the plant, led by the machinists, turned the lockout into a strike by demanding the eight-hour day with Saturday half holiday and the recognition of the shop committee. The company, aided, of course, by the local Merchants' and Manufacturers' Association, employed the usual methods of strike-breaking, importing scabs and gunmen. About 6,000 of the workers were in the A. F. of L. before the strike was over. But their craft division—meetings of the separate crafts in separate halls, etc.—finally led to their defeat and the introduction, for a time, of the company union and other welfare devices.

At present the Machinists' Union in Detroit has less than a thousand members on its books. However, an untiring progressive group in the union still carries on agitation chiefly among diemakers, machinists and tool room men in such plants as those of the Fisher Body Corporation. Appeals to the workers point out that conditions were much better some years ago when the union was comparatively powerful, and urge them to organize for a return of the days when the union meant something in the lives of Detroit machinists. It is also shown that it is easy for the employer to cut the wages of the unorganized worker, who is powerless in any individual bargaining with the wealthy corporations.

In spite of this local activity one finds no current references to the auto industry campaign in the columns of the *Machinists' Monthly Journal*. The national officers seem to have abandoned all thought of the campaign even though their interest was somewhat revived when the A. F. of L. plans were projected in 1926.

P. J. Conlon, head of the national union's organization department, in 1925, according to the *Locomotive Engineers' Journal*, was willing to "Let Foster Do It," referring to W. Z. Foster, leader of the Steel Strike of 1919 and head

of the Trade Union Educational League, the national left-wing organization which has taken a leading part in labor struggles in recent years. Conlon's attitude reveals the hopelessness of the Machinist officials' activities. The story ran as follows:

Craft unions are impotent to organize men who have no crafts, Conlon admits. . . . Craft lines have been wiped out by the machine processes in the plants. . . . There is no feeling of craft skill there. Instead there is a great crowd of men, who, if they ever protest, will protest all at once, regardless of advice from experienced leaders, and they will develop a sort of revolutionary fury. . . .

Conlon thinks the Machinists and the A. F. of L. will be quite willing to hand over the job in Detroit to any of the radicals who think they can organize the proletariat that is out of the craft unions.³

The Auto Workers' Union

The United Automobile, Aircraft and Vehicle Workers of America is the one union in the country that has opened its doors to all workers in the industry. This union, which was industrial in form from its beginning, developed out of the Carriage and Wagon Workers' International Union of North America founded in 1893 and affiliated with the A. F. of L. after having been for two years a part of the Knights of Labor.

In 1911, when the A. F. of L. was finally forced to recognize the existence of the automobile industry, this union was permitted to broaden its scope and change its name to the Carriage, Wagon and Automobile Workers' International Union. It began to consider the necessity for organizing this fast growing industry, especially since its own members, workers from the carriage and wagon industry, were drifting into the auto plants, at the same time desiring to keep up their membership in their old union.

³ *Locomotive Engineers' Journal*, October, 1925.

However, in 1916 the A. F. of L., forced by the strong craft unions who, as we have seen, laid jurisdictional claim to the auto workers, ordered this union to strike the word "automobile" from its title. This the union refused to do, for by this time its membership of 13,000 was composed very largely of automobile workers. Because of this refusal to obey the order of the A. F. of L. its charter was revoked in 1918 when its membership was over 23,000. From this time on it remained an independent union, calling itself by its present name. Its total membership in all its locals in 1920 reached over 45,000⁴ and its 35 locals flourished in such cities as Detroit, Toledo, Cleveland, Cincinnati, Flint, Pontiac, Buffalo, Chicago, and New York. Seven national organizers were kept on the job organizing the workers in various centers.

The history of efforts to organize the workers in Detroit should be of particular interest to those who would undertake this task in the future. Local 127, as it is still known to this day, was the "prize local" of the union. It was formed in January, 1916, and was composed originally of 14 workers. It grew very fast, especially in the body shops, and was chiefly successful in organizing at that time skilled workers of the Fisher Body Corp. which had not yet come under the control of General Motors. Organization of these workers in practically every plant won them the 48-hour week, increases in wages, and improved conditions.

In the spring of 1919, Local 127 was described by President W. A. Logan of the national organization as the "strongest and largest single labor union in Detroit, and for that matter of any place west of New York City." It had already outgrown its headquarters twice, and was growing at the rate of about 1,000 new members a month. This was during a boom period when the motor plants were swinging back to peace-time production and operating at capacity in an

⁴In 1915 its membership was 13,000; in 1916, 17,200; in 1917, 19,500; in 1918, 23,200; and in 1919, 38,100.

effort to make up for time lost when engaged in war work. The domestic demand for cars was much greater than the plants could meet.

The local had a form of organization much like the shop steward system then so powerful in England. The Detroit auto workers were organized in "shop units" which were composed of committeemen elected, one for every ten workers, from the different parts of the plant. The governing body of the local union, the Board of Administration, was made up of the secretaries and chairmen of these units, the executive board of the local and the elected officials. All grievances of the workers were first brought to the shop units, and the committeemen who comprised them were able to deal with the companies directly. When they were unable the local carried on the bargaining. The following Detroit companies were then organized in part and separate meetings were regularly held for them: Studebaker, Hupp, Fisher Body, American Auto Trimming, Young, Wadsworth, Cadillac, Anderson, Briggs, Hudson, Chalmers, Wilson Body, McCord, Lincoln and Packard while "miscellaneous shop unit" meetings were held in plants where insufficient workers were in the union to warrant a separate unit. Dodge, Ford, Paige, Kelsey Wheel, Saxon Motor and others were among these plants.

Union Strikes

Conflicts with the employers forced the union to call a number of strikes. A few of the most important of these may be briefly described.

The strike of some 1,500 workers, about 90% of whom were in the union, at the Wadsworth Manufacturing Co. in April, 1919, was precipitated by the company's desire to dictate who should be elected to the workers' committees. The company was practically controlled by Ford and was engaged in turning out Ford sedan bodies. The company

refused to meet with the committee, advertised for help all over the country, and used Ford employees as strike-breakers. The local Board of Commerce assisted the company in its efforts to break the strike which practically ended when the company's building was destroyed by fire in August, 1919.

The 700 workers of the Young Spring and Wire Co. in the spring of 1919 went out for an increase in pay and the reinstatement of three girls who had been discharged. After two weeks all the demands were won including the eight-hour day, the payment of time and a half for overtime work, and the right to deal with the firm through the workers' committee. As in the Wadsworth strike there was much police brutality against strikers.

A number of strikes were also resorted to during the period following the boom days of 1919-20. The employers had a surplus of labor. They were determined to break down the power of Local 127. Notable among these later strikes was that against all the plants of the Fisher Body Co. which in November, 1920, had instituted a 10% reduction. This first cut was accepted. Reductions were then being given in most of the plants in Detroit. Following this came another cut of about 25% which the union officials contended had to be accepted. Following this the workers were ordered to do more work per hour and to work overtime. Conditions became impossible. The company refused to grant a hearing to the workers' committee, and this led to the strike in February, 1921. The picketing was ably done and the meetings were well attended. The company mailed letters to individual workers attempting to persuade them to return but without success. An injunction was tried but failed to break the ranks of the workers. Finally, about the middle of April an agreement was reached which granted the workers some of their demands, and the organ of the union could announce that the "strike has served to clear up many misunderstandings that existed in the past."

Another notable strike during the same period was against the Packard Co. whose net earnings on common stock had, the previous year, exceeded 50% and constituted the largest profits in the history of the company up to that time. The painters in the plant, members of Local 127, struck against a drastic reduction in wages. The company was unable to get the work done in other plants as all the skilled automobile workers were organized; the strikers stood firm 100% and after 12 weeks the strike was settled, all the men returned to their jobs and collective bargaining continued with the company.

The painters on closed body work employed by the Hupp Co. at the same time were locked out to enforce the acceptance of a reduction in wages. But no strike-breakers could be secured as all the painters were in the union.

Outside of Detroit the union carried on a number of important strikes through some of its stronger locals. In Grand Rapids, for example, the workers of the Hayes-Ionia Body Co. struck when their committee was fired. For 15 weeks the company tried to break the strike with scabs and injunctions but finally agreed to a conference with the union men. All the 400 workers were taken back without discrimination. During the strike the local union lost only seven members.

Other important strikes during this period were those against the Seaman Body Co. (manufacturers of Nash bodies) in Milwaukee and against Buick at Flint. But the most effective strike outside of Detroit was waged in 1919-20 against over 100 smaller employers manufacturing chiefly custom bodies in New York City. Over 2,500 workers struck when the employers' association refused a conference with the union which was asking for increased wages and the 44-hour week. After 17 weeks all the demands of the workers were won.

Still the Detroit local led all other districts both in the number of strikes called and in the general intensity and

spirit of its agitation. Indeed, Local 127 was so active, especially during 1919 and 1920, before the depression set in, with its well-edited weekly paper reaching a sale of 50,000 copies among the Detroit workers, and its shop committees thriving, that the conservative leaders of the A. F. of L. as well as the employers became alarmed. The union was not markedly radical in the political sense of the term, but it carried fair news about Soviet Russia in its paper and preached and practiced what the A. F. of L. called "subversive" industrial unionism. At any rate in the summer of 1919 the late Samuel Gompers, President of the A. F. of L., submitted to the United States Senate Judiciary Committee a report pointing out that Detroit was in a dangerous position, that the spread of "deadly doctrines of Bolshevism" as he called them, was going on in the city. He seriously suggested that prohibition was the cause of all this fervor and that it could be stamped out only through legalizing the sale of light wines and beer! "Beer or Bolshevism" was a characteristic A. F. of L. slogan!

The employers took advantage of the fact that Gompers was at one with them in their opposition to Local 127. They put up a stiffer fight against the union during the following two years, and, assisted greatly by unemployment, succeeded in breaking its strength.

Decline of the Union

By the spring of 1921 the auto industry had been hard hit. Thousands of workers were idle and Local 127 found itself holding regular meetings of the unemployed, furnishing free meals to them and running a food commissary for out-of-work members. Records of the union showed at the same time that at least 2,000 had left for the smaller towns and farms of Michigan and adjoining states and that others had dropped out through the intimidation of the employers. In spite of the employers' offensive, accompanied by wage

cuts and lengthening of hours, the union was by no means altogether "down and out." Many of the shop units were still functioning and applications for membership were still being received by the Board of Administration.

However, neither the local nor the national union recovered from the blows delivered by the employers during the 1921 depression. Early in 1923 many locals were still carrying on a vigorous agitation and holding monthly meetings, but with nothing like the enthusiasm of the boom days of 1919. The meetings in Detroit, for example, were no longer held by plants. Instead there was one general membership meeting a month. The Detroit paper had been discontinued and the national organ, the *Auto Worker*, was first reduced from 16 pages to 8 pages and was finally discontinued in 1924. As a result of this weakening of the union, President Logan reported that the conditions of the workers were much worse. Wage cuts, overtime, Sunday work, the speed-up, absence of workers' control, all indicated this.

Since then the membership of the national union has dwindled to some 1,500 in locals in Detroit, New York, Brooklyn, Milwaukee, St. Louis, Grand Rapids and Flint. The New York local, consisting chiefly of highly skilled men employed in small repair and custom body shops, has been relatively effective in keeping something of the conditions won during the period of greatest union strength. It has established the 44-hour week, abolished piece work, secured wage increases, double time for Saturday work and full collective bargaining with the employers.

The Detroit local, although not powerful enough to control conditions in any one plant, has members in Fisher Body, Packard, Dodge, Ford, Murray Body, Studebaker, Chrysler, Hudson and most of the General Motors plants, and is now trying to build at least a small unit of loyal, intelligent unionists in every auto plant in the vicinity.

It holds open air meetings in front of the shops and publishes a monthly 4-page paper,—*The Auto Workers' News*—crammed with facts about conditions in the industry. It distributes leaflets fairly widely among the workers, and has a small but very devoted and determined rank and file. It is especially active when sporadic strikes occur and has tried to broaden these walk-outs into something more than mere departmental manifestations of discontent.

Communists in the Industry

The radicals to whom, as we noted, Conlon of the Machinists' Union would leave the job of organizing Detroit, have indeed taken a marked interest in the organization of the industry. In the last few years the Workers' (Communist) Party has turned its attention very determinedly to the organization of the unorganized. As a part of this program it has carried on energetic campaigns in Detroit much to the alarm of the employers' associations who have spent a good deal of money on "Red experts" to expose the movement. The Communists are relatively strong in some of the local unions, and such strength as they have among the working population of Detroit they have concentrated to a large extent on the auto industry.

The Workers' Party has pointed out that the period of greatest domestic expansion in auto manufacturing is coming to an end and that the concentration of capital and the competition between the consolidating groups will mean more pressure on the workers—more speed-up, more wage cuts, a lowering of living standards, increases in lay-offs. They consider the time ripe for arousing the workers from their apathetic acceptance of, or futile grumbling against, present conditions, and are trying to awaken them to the need for organization.

The party stresses chiefly the formation of shop committees in every department and plant. These skeleton com-

mittees, started by the most militant workers, will, in their early stages, attract only the more advanced and class-conscious workers. But later, during periods of active struggles, they will draw in the masses and integrate them into a broad industrial union. Because of its structure and aims the Auto Workers' Union is regarded as the type of union that can most effectively organize the workers during the present period, and all workers are urged to join it, and to put no confidence in the craft forms of organization.

As in other American industries this party forms its own nuclei also in the various automobile plants. They are chiefly engaged in preliminary educational work and elementary political propaganda. The party has published the first agitation papers ever issued in the industry for the workers of particular companies or plants. Some of those published in Michigan are *The Ford Worker*, *The Fisher Body Worker*, *The Dodge Worker*, *The Packard Worker*, *The Hudson Worker*, *The Chrysler Worker* and *The Buick Worker*. These little four-page papers, which range in circulation from 1,000 to 20,000 (Ford has the largest), carry about two pages of general news and editorials and two pages of shop reports, notes and letters, with the purpose of relating the daily grievances of the workers to the broader issues of their life and status under capitalism. The papers constantly urge the workers to join a union. Even the most conservative workers will buy these papers, sold for a penny at the gates of the plant by volunteers. The average worker who reads the little paper will usually agree with the criticisms of the company and the foremen, and the sharp exposure of the speed-up and other conditions, but he is still afraid to join the union for fear of immediate discharge. The companies are often forced to make many of the minor improvements demanded by these papers and to correct the conditions complained of in their pages. They do it, of course, to prevent the increasing

discontent that might result were the criticized conditions to receive further publicity.

The party work among the automobile workers has always stressed the importance of organizing the women, the young workers and the foreign-born workers. They realize that unless these elements, among the great mass of unskilled workers, are brought into the union, through the medium of the shop committee, the great plants can never be successfully organized.

To date the efforts of the Workers' Party have met with a considerable response as shown by the circulation of the papers. However, the fear of discharge and spies has held the workers back from more active participation in organization activities. But the agitation is not decreased because at first it seems to meet with such little practical response. When the workers are organized in Detroit, and the other automobile centers, it will undoubtedly be with the aid of the most active elements of the working class, many of whom are Workers' Party members.

CHAPTER XIII

SOME RECENT STRIKES

THE United States Department of Labor informs us that "there are comparatively few strikes or controversies in the automotive industry" and that they now make no compilation of such strikes as occur. And the Department of Labor and Industry of the State of Michigan has "no record of industrial disputes, either large or small."

However, in spite of the absence of official figures, the industry, as already noted, has had its strikes. Its larger ones, some of which we have described in discussing the Auto Workers' Union, were during the period 1918 to 1920 before labor had reached its post-war deflation and when the labor market was more favorable to the workers. During the years 1919 to '21 the United States Bureau of Labor Statistics reported on strikes carried on by various crafts against such firms as Mitchell, Haynes, Allis-Chalmers, Studebaker, Dodge Bros., Champion Spark Plug, Chevrolet, Locomobile, and Motor Products. Some involved a few hundred skilled workers; others took in every worker in the plant. But most of the recent strikes have gone quite unheralded in the press. Only the *Auto Workers' News* and the various shop papers have recorded them, and that quite inadequately.

These sporadic and spasmodic strikes of more recent years have usually involved but one or two departments and often only a few men in one department of a plant. They have not been wide "mass strikes"; no organization has called them or even known when they were coming, or has been ready to capitalize them effectively by broadening

them into mass attacks against the companies. Often these strikes would take the following form:—the men would object to a wage cut, be told they could quit if they didn't like it, and walk off the job together. Such an incident could scarcely be called a strike. It is rather a stoppage or a joint "quitting of jobs" in the face of what seems to the men, at the moment, an unendurable situation.

Practically all these strikes have been strikes of unorganized workers. In a few cases some of the workers who struck may have had open or secret relations with a labor organization. Occasionally, a member of the Auto Workers' Union might be found at the head of such a walkout. But usually they have been workers with little experience in collective protest. For example, in Kenosha, the workers in the Nash "Duco" rubbing department, who walked out four times in three weeks in the summer of 1928, were all new at striking. In this instance they may have been influenced by the fact that a strike of unionized hosiery knitters was in progress at an adjacent plant.

These "out-and-in" strikes were successful, as in the case of the Nash workers, chiefly on those occasions when the company happened to be turning out new models and hence crowding production and in need of all hands at the machines. For example, a favorable opportunity presented itself to the Fisher Body workers making new Buick bodies in 1925. When wage cuts began small strikes came in bunches including aluminum molders, metal finishers and others. They were won. And in February, 1928, about 20 different groups of workers struck at the Pontiac plant of Fisher Body to get consideration for their grievances. In many instances the company made concessions solely because it was in the middle of a rush order. Strikes that have come at other periods, when the companies were not so pressed, have, as far as our record shows, been unsuccessful.

Because the workers have been unorganized before walking out, these little strikes have had no permanent value. Concessions they may have gained when they were successful have usually been withdrawn by the company as soon as opportunity permitted. The leaders have frequently been victimized. After such strikes those who have led them have often been fired and sometimes blacklisted. In many cases the company, through its spies and spotters, has been able to identify and discharge the leaders of a group of discontented workers even before a threatened walkout occurred. And where these strikes have been won and the leaders returned to their jobs the companies have often proceeded later to weed out and fire the most active workers.

The causes of most of these strikes, a careful study of them shows, have been workers' resistance to various forms of wage cutting. Wages have predominated as the cause of strikes in organized trades. It is natural that they should be relatively more conspicuous as the cause of stoppages in unorganized industry where questions of union hour standards and union recognition have not developed.

A Fisher Body Walkout

Of some 35 strikes of this kind which we have recorded during the last two years, we find that 12 were in plants of the Fisher Body Corp. This may be due to the presence of workers who had some training in organization during the days when the Auto Workers' Union was strong in those plants. One recent departmental walkout that attracted more than usual attention took place in the great Fisher Body plant at Flint on Thursday, July 5, 1928. A group of about 200 men in the oil sanding department, who perform one of the important operations in the finishing of bodies preparatory to their being sprayed with "Duco," were ordered to do a larger body—one of the new Buick Silver Anniversary

models—without any increase over the rates they had received for the previous model.

The workers plugged as hard as they could for two weeks on "the dashing new bodies reflecting the full genius of Fisher Craftsmanship," [Buick ad.] but found that because of the increased work they were falling behind in their pay from \$1 to \$1.25 a day. In spite of their protest, the company insisted that they try again to make up their former earnings by speeding up. Convinced that they could secure no satisfaction from the company without decisive action, they walked out.

As soon as they had struck the workers sent a committee to Detroit to ask the Auto Workers' Union to assist them. The Union promptly sent two organizers. A meeting was held where the demands of the workers were formulated and strike and picket committees were chosen. The demands of the strikers were as follows:

1. A 25-cent increase on coach and coupé jobs.
2. A 10-cent increase on roof rail panels and drip molding panels.
3. A better grinding compound instead of the oil now furnished, and more sand paper for the job.
4. Hot water for washing.
5. No victimization of strikers.

The company refused to consider these demands and insisted that the workers return to their jobs. Instead the strikers "mass-picketed" the plant and held meetings at the gates to arouse the other workers. Production was held up to some extent by the following Tuesday and representatives of the metal finishers expressed their intention to walk out in support of the demands of the oil sanders. The company countered this move by promising the metal finishers \$1 an hour for their job whether there was work for them or not. They stayed at work. The wet sanders

also showed signs of sympathetic unrest but were quieted by an increase of 25 cents a body. Both these increases to the other groups were taken away as soon as the strike of oil sanders was broken.

The strike lasted 12 days. Without the full support of other important groups in a plant employing about 7,000, it could never have hoped to succeed. Most of the men were permitted to return to work, but some of the leaders were fired. These strikers were almost all of the "American type" who had been suffering under an accumulation of grievances. The local leader of the men expressed their feelings when he said: "Well, the company treated me pretty fair for about three years. But last year this wage-cutting business started and now they come along with another one that means about \$7 a week more out of our pockets. This was more than any one of us could stand."

This strike did show that auto workers, with some outside help, are capable of organizing themselves in an orderly manner to conduct picketing and other strike duties. The union made every effort its resources at that time would permit, to make this strike a starting point for permanent organization work in Flint. In the course of these efforts the police of the city arrested workers selling the *Auto Workers' News* and informed them that no "outsiders" were needed to organize General Motors!

Striking General Motors of Canada

Perhaps the most significant automobile strike since the days of peak strength of the Auto Workers' Union was that of the 3,000 workers employed by the General Motors of Canada at Oshawa, Ontario, in 1928. Although General Motors informs the world in a piece of sales literature that "labor conditions are ideal" in Oshawa, which is a typical "company town," boasting much welfare work and

—before the strike—a police ban on all open-air labor meetings, these workers struck on March 26 in protest against a cut in wages. The strike started with a gang of 300 workers in the trimming department who had received wage cuts of about 40%. The workers on other assembly lines who had previously been cut 35% (the usual tactics of cutting one department at a time) without manifesting any resistance, walked out the next day. The plants were completely closed down.

The workers rejected the proposal submitted by the employers through the conciliation officer of the Canadian Department of Labor to return to work at the reduced rates pending arbitration of the dispute. They demanded, instead, that the wage scales existing before the cut be maintained and that no discrimination be made against the strike leaders.

Aroused at the prospect of the continuance of the somewhat radical leadership of the strike, representatives of the A. F. of L. and the Trades and Labor Congress of Canada proceeded to organize the workers into a Federal Labor Union, i.e., a local union directly affiliated to the A. F. of L. and directed from Washington.

From the point of view of the immediate purpose for which the strike was called it seemed at the time to be a partial success. According to the first number of *The Steering Wheel*, issued for a time by the Federal Labor Union, the gains were the abolition of the Association of Employees—a sort of company union with compulsory membership and dues of \$1.00 a year—the checking of the wage-cutting process at least until the beginning of work on the 1929 car models, abolition of the “accumulative earnings system,” no-discrimination treatment of union members, abolition of the practice of reducing piece rates after prices are once fixed on new models, regrouping of certain

classes of workers with higher rates of pay, and the settlement of certain minor grievances.

The Federal Labor Union, however, proved to be no protection for the Oshawa workers. For it was not officially recognized by the company, and a quiet process of removing work to other plants has caused unemployment in Oshawa and undermined the union whose active spirits have been blacklisted. General Motors has already "persistently discriminated against" the members of the Oshawa local, to use the words of a recent resolution of the Trades and Labor Congress of Canada. General Motors has also broken other provisions of the settlement. According to the secretary of the Oshawa Federal Union, "General Motors has broken every clause in the findings of the Board of Conciliation" that had settled the strike. It was obviously determined from the start to destroy completely the organization formed during the strike. And this purpose has almost been achieved as this is written. The Federal Union has been reduced to a handful of members. The majority of these, realizing the impossibility of building an effective union on the lines of a federal union, have later affiliated themselves with a new union, the Automobile Workers' Industrial Union of Canada.

This union was formed in November, 1928, and affiliated with the All-Canadian Congress of Labor. Its membership includes not only members in the new Oshawa local, but also a local in the Border Cities. This local, comprising workers in the Ford, Chrysler and Studebaker plants, has assisted sporadic strikes in the plants of the two latter companies. It promises to be the leader in future struggles of the Canadian auto workers. The very fact that wages and conditions in the American-owned plants in Canada are even worse than in Detroit—Ford, for example, having a six- instead of a five-day week and much over-

AUTO WORKERS' SHOP PAPERS

CHAPTER XIV

A PROGRAM OF ACTION

IN this formidable industry where workers are treated like mere cogs in a machine, where they are handed arbitrary wage-cuts and lay-offs, where hours of labor are excessive and speed-up is beyond endurance, where "welfare" schemes deceive and intimidate the worker, where every spontaneous protest is met with the crushing and banishment of those individuals who dare to question the arbitrary decisions of foremen or executives, the one outstanding and primary need is for the workers to organize.

Sufficient grievances exist for interesting, educating and arousing the workers. Experiences gained in the unions that have already functioned in the industry, and from the sporadic as well as organized strikes that have occurred, indicate the form, structure and procedure for the kind of union able to unite the various elements working in the plants.

The type of organization must be based on the structure of the automobile industry. It must be an industrial union built on a shop committee basis, uniting the skilled, semi-skilled and unskilled regardless of age, creed, color, sex and nationality. It must recognize the shop as the unit and carry on its propaganda by an appeal to the special grievances of workers in a particular department or plant, at the same time building a broad, effective defense against the Open Shop drives of the employers.

The following summary of some of the outstanding causes of discontent among the workers will indicate the

more important demands which an automobile workers' union must put forward for its members.

Demands

Wages of auto workers, as we have shown, are below those required by the so-called minimum health and decency budgets and also below those received by workers in unionized trades. The "high wages" in the industry are, in fact, nothing but a myth. Although a few of the workers from the farms and the small towns may at first consider their wage rates in the auto plants comparatively high, they soon realize the higher cost of living in the industrial centers and the drains upon health that the work entails. They also begin to realize the low yearly earnings due to the irregularity of employment and the periodical lay-offs. Higher wages will thus be among the first demands of auto workers. At present agitation for more pay would have to take the form of active resistance to the many wage cuts which, we have noted, are effected piecemeal and by a variety of methods—reduction of bonus, laying off higher paid men, piling on work, reducing piece and gang rates.

This leads naturally to a consideration of speed-up which a strong union would do much to eliminate. The time study device, the confusing bonus schemes, the driving of the workers, the group systems of payment—all have contributed to this harmful process. Without a collective voice in the plant the workers are bound to be driven harder and harder. Any organized group of workers will have to take strong measures against all speeding up.

Hours, as we have seen, are long. They may average for a week only a little more than 50 but at certain seasons they are much longer, and even at 50 they are in excess of the 8-hour day which American auto corporation executives like to talk about—and then violate. Overtime should be cut out completely and the available work spread over the year

during normal working hours, with night shifts cut to the barest minimum. Normal hours should be—as an immediate goal—40 a week. The 5-day week and the 8-hour day, with a still shorter week in the more unhealthful departments, should be demanded.

Closely related to hours goes the whole question of employment and all its uncertainties and insecurities. With the automobile production seasons determined more and more by style, and with the increasingly frequent introduction of new models, irregularities in employment multiply. Short-time work and lay-offs constantly menace the worker and reduce substantially his annual earnings. The shorter working week and working day would have some stabilizing effect on this situation. But realizing that unemployment, both seasonal, cyclical and technological, is an inevitable characteristic of the industry, as operated under the capitalist system, the auto workers must demand the enactment of legislation providing not only for fewer hours of work, but for the establishment of a system of federal employment agencies and a comprehensive system of unemployment insurance, the cost of its maintenance to be borne by the corporations and the government.

Related social legislation should of course be worked for. In addition to unemployment insurance, the union would fight for insurance covering old age, sickness, accidents, invalidity, and death. Such measures, advocated by the union, would help to discredit the inadequate and paternalistic insurance used by several auto companies, such as General Motors, to tie the workers to their jobs and prevent organization. An effective union will also have to put up a fight against all the paralyzing stock ownership, group insurance, and other specious company welfare schemes described in Chapter X.

But even before any real social legislation is achieved the auto workers, in their first stages of organization, will be

forced to fight defensively for the maintenance of certain elementary "democratic rights." Free speech and assembly have been denied and will repeatedly be denied to these workers by local politicians working under the thumb of the motor corporations. The workers will have to fight first for the right to meet, organize, strike and picket. They will have to fight the growing menace of the injunction. These general political demands will be uppermost at the outset of any unionizing campaign.

Political demands will, in turn, bring the auto workers face to face with the fact that both old-line political parties are the agents of the corporations. Out of their experience and struggles will develop a realization that only a party of the working class, organized to fight the capitalist system of exploitation, and representing the interests of the workers, can serve them in their struggle for industrial and political power. The task of building such an effective political arm will have to be shared in by any union fighting for the real interests of the automobile workers.

Then the workers must also demand some protection from the petty tyranny of the bulldozing foremen and sub-bosses. These slave-drivers are a part of the speed-up system, the human agents facilitating its smooth operation. They can only be curbed by a union. The workers as individuals are powerless against these little tsars. At the same time the workers, when properly organized, will not be so inclined as at present to blame all their troubles on the foremen. They will see that it is not the lower bosses, brutal though they may be, who are their main enemies, but the companies themselves. And they will also see that the struggle against the company is but a part of the class struggle against the millionaire owners of industries coining fantastic profits out of their labors.

All the other grievances that we have mentioned fall into place as items on a list of demands to be made by any

union attempting to function in the industry and to serve the workers effectively. All the unhealthy and dangerous factory conditions which unorganized workers are powerless to change can be improved, or completely eliminated, by a fighting union expressing the desires of the workers.

The union that organizes automobile workers will also have to emphasize the special demands of young workers, women, Negroes, and foreign groups, all of them important factors in the industry. The enthusiastic support of youth is essential to any successful organization campaign. This can be gained by paying particular attention to their conditions. Especially in the parts and accessory branches and in those departments of all plants where women are prominent must their interests be united with those of the men. Equal pay for equal work will be the initial demand along with the strict enforcement of laws relating to the employment of women. The Negroes, comprising 10% of the personnel in some plants, and the foreign-born have often been discriminated against. These most exploited workers will respond to the call of a militant union which employs special organizers from their own groups to deal with their problems, and which demands for them equal treatment with white and native workers.

Power Through Union

Having seen what the grievances and the demands of the workers are, and having observed in Chapter XII what various unions in the past have been able to do to remedy working conditions temporarily, we may draw a few further conclusions on the kind of union that can organize this completely non-union industry.

In the first place it is clear that this industry will not be organized without a real struggle. To organize auto workers means a fight. We have described the organized power of the employers, their unceasing propaganda, their

banking connections, their various associations, their anti-union war chests, their readiness to use every weapon, subtle and brutal, to prevent organization of workers—spies, blacklists, hired thugs, police power, welfare work, injunctions, discrimination. It follows that a union seeking to appeal to the workers along the “belt” will not talk “peace” and “coöperation,” but will have to sharpen weapons for a long and difficult siege. It will be struggle, and on a broad scale. Only a spectacular, sweeping campaign will finally break the absolute power of the anti-union corporations. It will not be done by sweet words inviting a few of the employers to a conference. It will be done by a workers’ offensive all along the line.

It is obvious that only a group with the will and the determination to organize can carry on such a fight. Unlike the leaders of the A. F. of L. it must believe that the job *can* be done. The doubting Thomases, those who are afraid to advance to the attack and to face great difficulties and dangers, will never organize these powerful motor giants. Labor officials who, as part of the vicious National Civic Federation, solemnly declare that “the day of strikes is past” aim naturally to paralyze the movement. The same can be said for “leaders” who exaggerate the obstacles apparent in the path of organization—the overwhelming financial resources of the corporations, the greenness, unskilled and transient character of automobile labor, the recurrent unemployment periods, the indifference and inertia now prevailing. These are factors common to all large-scale trustified industry in America. They must be resolutely faced by an organization keenly aware of workers’ needs and possessing the will to fight.

In the third place, only a progressive union that takes in every type of worker in the plant can do the job. Craft unions, built along customary A. F. of L. lines, and aiming to care for the aristocracy in the industry, have no re-

lation to the problems arising in great plants full of unskilled machine tenders and one-operation specialists. Such unions, squabbling over jurisdictions, will only breed indecision and weakness. The union that organizes auto workers must be a *factory workers' union*. It must be as modern and up-to-date as the industry itself.

By the same token it must be a union covering the whole industry as well as every operation in the plant. General Motors, Ford, Chrysler, Willys-Overland, and their associates have assembly plants dotting the country. All the associations of employing corporations are nationwide. Only broad-scale, national action can avail against such corporations. Fisher Body alone with its 44 plants calls for a union that stretches from coast to coast, that embraces the industry. And the parts and accessory workers, so vital to the industry, must be in the same union with the workers in the larger plants and the assembly units.

No pigmy Federal Labor Union affiliated with the A. F. of L. can organize these workers. It has been suggested by some persons with reactionary ideas that the Auto Workers' Union disband and its constituent local unions become Federal Labor Unions. This would mean: (1) the complete separation of one local of auto workers from another, rendering impossible the solidarity needed for struggling with employers whose interests and branches cover the country; (2) the control of funds by the A. F. of L. instead of by the local workers, leaving them without financial power, in addition to the denial of the right to call strikes without sanction from Washington; (3) the expulsion from the locals of the most active workers—the left wingers—as has happened in other federal locals, all under A. F. of L. domination; (4) the surrender of members to any A. F. of L. craft international at any time it laid jurisdictional claims on them. The division into Federal Labor Unions would thus stultify forever any efforts to

organize the workers of the industry. Only a national industrial union, binding closely the workers of all automobile centers, can be effective in organizing the workers.

The fact that an industrial union embracing all workers, regardless of skill, nationality, color, sex and age, should be built does not mean that the minority of skilled workers are to be neglected. These men, who are paid less than union men of similar ability in organized trades, will be needed in any effective strike against Ford or General Motors. The assembly line workers, when questioned on organization and strike prospects, often ask: "Would the tool and die makers strike too?" These workers are very important. They were the leaders in the Machinists' strikes of 1919-20 as the skilled painters and body builders and other skilled men were the backbone of the Auto Workers' Union during the same period. And in recent days it is these more skilled groups that have resorted to sporadic strikes in an effort to redress their grievances. They must be appealed to as the most strategically situated forces in any mass movement, and the danger, even after they are organized, of their splitting off from the industrial union into rival A. F. of L. craft unions must be carefully guarded against. Their solidarity with less skilled workers, transient workers, southern workers, and the foreign-born must be created through a union that takes in every worker in the plants.

Shop committees will certainly have to be used as a basis for agitation by the union that organizes this industry. For the shop and not the geographical local is the natural unit of representation and the place around which basic union activity must center. Both secret and semi-secret shop committees should be used to prepare the way with education and propaganda for the first wide sweeping rebellion of the workers. This departmental penetration will be the first step taken by the union in making contacts with

workers, and in helping them to evaluate grievances and give expression to demands. Unless these departmental delegates are trained from the start there will always be the danger that the mass of workers, enrolled during a wide open campaign, will be taken in faster than the union can digest them and will not become really conscious and disciplined union members. According to officials of the Auto Workers' Union this was one of the mistakes of the 1919-20 campaigns. The importance of the shop delegates system and departmental leadership can not be stressed too strongly.

The education of the workers will take various forms, but certainly they will respond only to a union that makes full use of the shop paper method of propaganda. Such a paper helps them to formulate grievances and give shape to demands. It applies to particular plants and companies and has a direct, personal appeal not contained in the general union or labor newspaper. These papers are needed, furthermore, to offset the "employee magazines" which, we have seen, are issued by several companies. They must be made vivid, colorful and accurate organs of labor, dramatizing the day-to-day struggles and demands, and counteracting the incessant propaganda of the employers who have such manifold outlets for duping and misleading the workers.

These are a few of the characteristics and requirements of the union that will organize the intensely exploited auto workers. Such a union must have the wholehearted support of the honest, virile and militant elements in all sections of the labor movement. For no isolated group of workers, no matter how securely organized at present, can ever hope to gain a real measure of control over its conditions until such a basic industry as automobiles is strongly unionized. The weakness of one group of workers in the long run vitally affects all the others. It is thus a matter of plain self-preservation for the existing unions to help

win over this non-union automotive territory. The organization of auto workers would mean immeasurably greater strength to the 3,500,000 organized workers of the United States.

But more than this, the organization of this vast industry with its half a million workers, its huge plants, its up-to-the-minute methods of mass production, its pyramided capital, its unbelievable profits, its growing concentration and consolidation, its thorough and militant organization of employers, its defiant anti-union labor policies, its terrific speed-up and wage-cutting practices—will mean everything to the millions of workers indirectly affected by it. It will inspire new hope of organization among rubber workers, oil workers, iron and steel workers, glass workers, railroad men, leather workers, lumber workers, coal miners and all the others who are in some way linked with this industry. It will be no less stimulating to the millions who now toil without the protection of unions in other great basic and trustified industries. The organization of auto workers would bring strength and an impetus for solidarity to all those who work in these great Open Shop plants.

The automobile workers need power. They need power to protect themselves on the job, to control the conditions of their employment, to raise the level of their working life. Together with all other workers they need it finally to change the whole social and economic system under which they are now exploited and oppressed. The development of the union that will generate this power is the supreme task of the automobile workers themselves and of the whole labor movement.

TABLE I. PRODUCTION OF MOTOR VEHICLES IN AMERICAN INDUSTRY, 1903-1927 ¹

Year	No. Passenger Cars & Trucks	Wholesale Value Passenger Cars & Trucks (in thousands) \$	No. of Cars	Wholesale Value of Cars (in thousands) \$	No. of Trucks	Wholesale Value of Trucks (in thousands) \$
1903	11,000	12,650				
1904	22,830	24,629				
1905	25,000	40,000				
1906	34,000	62,900				
1907	44,000	93,400				
1908	65,000	137,800				
1909	130,986	165,149				
1910	187,000	225,000				
1911	210,000	246,000				
1912	378,000	378,000				
1913	485,000	443,902				
1914	569,054	458,958				
1915	969,930	701,778				
1916	1,617,708	1,082,378				
1917	1,873,949	1,274,488				
1918	1,170,686	1,236,107				
1919	1,933,595	1,885,113				
1920	2,227,349	2,232,420				
1921 ²	1,682,365	1,261,667				
1922	2,690,627	1,793,023				
1923	4,167,455	2,592,033				
1924	3,733,492	2,367,413				
1925	4,427,660	3,015,164				
1926	4,503,531	3,214,817				
1927	3,573,671	2,700,706				
1928 ³	4,615,000	3,045,820				
			127,731	159,919	3,255	5,230
			181,000	213,000		
			199,319	225,000	10,681	21,000
			356,000	335,000	22,000	43,000
			461,500	399,902	23,500	44,000
			543,679	413,859	25,375	45,098
			895,930	575,978	74,000	125,800
			1,525,578	921,378	92,130	161,000
			1,745,792	1,053,506	128,157	220,983
			943,436	801,938	227,250	434,169
			1,657,652	1,461,786	275,943	423,327
			1,905,560	1,809,171	321,789	423,249
			1,529,165	1,095,883	153,200	165,784
			2,430,965	1,571,569	259,662	221,454
			3,759,704	2,282,954	407,751	309,079
			3,317,586	2,049,102	415,906	318,311
			3,896,032	2,555,419	531,628	459,744
			3,975,640	2,758,446	527,891	456,371
			3,086,018	2,269,056	487,653	431,650
			4,029,000	2,630,500	586,000	415,320

¹ Compiled by National Automobile Chamber of Commerce.² 1921-1928 figures include production of plants located in Canada. Also include the number and value of foreign assembled cars of U. S. design, not already identified and counted in the production figures when the parts and units were exported.³ Preliminary figures.

TABLE II. NUMBER OF PERSONS EMPLOYED DIRECTLY AND INDIRECTLY IN THE MANUFACTURE, SALE, DISTRIBUTION, INSURING, REPAIR, SERVICING, AND OPERATION OF MOTOR VEHICLES IN THE UNITED STATES IN 1927.¹

Employed Directly

Motor vehicle factory workers.....	324,665
Parts and accessory factory workers.....	300,000
Tire factory workers.....	95,000
Motor vehicle dealers and salesmen.....	363,000
Supplies, accessories, tires and parts dealers and salesmen	160,000
Garage employees	125,000
Repair shop employees.....	300,000
Professional chauffeurs.....	600,000
Professional truck drivers.....	1,300,000
Gasoline refinery and oil workers.....	115,000
Automobile financing and insurance.....	20,000
Total directly employed.....	3,692,665

Employed Indirectly

Iron and steel workers.....	60,000
Copper, lead, tin, nickel and aluminum workers.....	15,000
Railroad workers.....	95,000
Plate glass workers.....	15,000
Tannery and leather workers.....	10,000
Lumber and woodworkers.....	15,000
Upholstering cloth, top and side curtain material workers....	15,000
Asbestos brakelining workers.....	2,000
Lacquer and enamel workers.....	4,000
Coal miners.....	5,000
Electric power workers.....	3,000
Highway officials, contractors, engineers, etc.	100,000
Road material factory workers.....	12,000
Machine tool workers.....	20,000

Total indirectly employed..... 371,000

GRAND TOTAL 4,063,665

¹ National Automobile Chamber of Commerce, *Facts and Figures of the Automobile Industry*, 1928, p. 16.

TABLE III. AUTOMOBILE PROFITS
PERCENTAGE OF NET PROFITS TO NET WORTH FOR NINE COMPANIES ¹

Year	Ford Motor Company	Reo Motor Company	Packard Motor Co.	General Motors Corp.	Willlys Overland Co.	Hudson Motor Co.	Studebaker Corp.	Nash Motors Co.	Dodge Bros. Inc.
1904	283								
1905	132	42	64						
1906	44	44	78						
1907	378	64	65						
1908	111	69	43						
1909	127	102	49	94					
1910	215	68	23	58		89			
1911	141	20	11	10		41			
1912	132	16	19	12		49			
1913	149	29	17	23	41	37			
1914	100	49	8	21	30	39			
1915	46	38	19	28	39	35			
1916	98	41	25	56	17	38			
1917	23	16	19	57	11	17		27	
1918	23	15	17	14	9	13		20	
1919	33	17	12	26	4	20		40	
1920	23	38	13	12	19 *	10	12	43	53
1921	56	6	2 *	9 *	34 *	7	18	12	29
1922	77	19	5	14	43 *	44	17	32	5
1923	29	28	15	15	23	35	12	35	35
1924	18	16	11	10	5	30	12	30	18
1925	12	20	27	24	20	55	19	48	25
1926	9	15	30	32	4	14	15	45	19

¹ Epstein, *The Automobile Industry*, p. 354.

* Net loss.

TABLE IV. PROFITS OF GENERAL MOTORS FOR SIX-YEAR PERIOD, 1922-1927

	<i>Net Profits for Dividends</i>	<i>Dividends on Pfd. & Com. Stock</i>	<i>Per Cent of Net Profits Dis- tributed</i>	<i>Profits Reinvested in the Business</i>
1922	\$ 54,474,493	\$ 16,606,345	30.48	\$ 37,868,148
1923	72,008,954	31,659,397	43.97	46,349,557
1924	51,623,490	32,303,269	62.57	19,320,222
1925	116,016,277	69,575,212	59.97	46,441,065
1926	186,231,182	111,576,280	59.91	74,654,902
1927	235,104,826	143,945,411	61.23	91,159,415
Total ..	\$715,459,223	\$405,665,914	56.70	\$309,793,309

TABLE V. GROWTH IN GENERAL MOTORS

	<i>December 31, 1921</i>	<i>December 31, 1927</i>
Total Assets	\$514,044,207	\$1,098,477,576
Net Sales	\$304,487,243	\$1,269,519,673

TABLE VI. PER CENT OF FULL-TIME EMPLOYMENT IN THE AUTOMOBILE INDUSTRY

	<i>1923</i>	<i>1924</i>	<i>1925</i>	<i>1926</i>	<i>1927</i>	<i>Twelve Months Ending Nov., 1928</i>
Average	82.3	78.7	82.0	83.3	80.6	80.8

This table is based on a study of the Bureau of Labor Statistics as reported in the *Monthly Labor Review*, February, 1929. The Bureau studied employment conditions in 78 plants and reported that: "The automobile industry shows the greatest instability of employment of any of the industries so far analyzed. . . . Not only does the industry as a whole make a very bad showing, but irregularity and uncertainty of employment conditions are the rule among practically all the establishments covered."

The table shows that: "The annual averages show consistently bad stability conditions with little or no improvement apparent. In fact, with the exception of 1926 each year showed a lower average than 1923."

BIBLIOGRAPHY

I. BOOKS AND ARTICLES

- Aikman, C. Howard, *The Automobile Industry of Canada*, McGill University, Economic Studies, No. 8, 1927.
- American Engineering Council, *Safety and Production*, Harpers, 1928.
- American Federation of Labor, *Proceedings of Annual Convention*, 1926 and 1927.
- American Federation of Labor, *Wages in Manufacturing Industries, 1899 to 1927*, Research Series, No. 6, 1928.
- American Federation of Labor, *Wages and Labor's Share in the Value Added by Manufacture*, Research Series No. 4, 1928.
- Arnold, H. L. and Faurote, F. L., *Ford Methods and Ford Shops*, Engineering Magazine Co., 1915.
- Ayres, L. P., *The Automobile Industry and Its Future*, Cleveland Trust Co., 1921.
- Barber, H. L., *Story of the Automobile*, A. J. Munson & Co., 1917.
- Christian Century*, "Henry Ford and Industrial Autocracy," Editorial, Nov. 4, 1926.
- DeBlois, L. A., *Industrial Safety Organization for Executive and Engineer*, McGraw-Hill, 1926.
- Doolittle, James Rood, *The Romance of the Automobile Industry*, Klebold Press, 1916.
- Epstein, Ralph C., *The Automobile Industry, Its Economic and Commercial Development*, A. W. Shaw Co., 1928.
- Erskine, A. R., "The Automobile Industry," Chapter II in *Representative Industries in the United States*, edited by H. T. Warshaw, Henry Holt & Co., 1928.
- Erskine, A. R., *History of the Studebaker Corporation*, The Studebaker Corp., 1924.
- Forbes, Bertie C. and Foster, O. D., *Automotive Giants of America*, B. C. Forbes Pub. Co., 1926.
- Ford, Henry (Crowther, S., collaborator), *My Life and Work*, Doubleday, Page & Co., 1922.
- Ford Motor Company, *The Ford Industries*, Facts About the Ford Motor Co. and Its Subsidiaries, Detroit, 1927.
- Foster, William Trufant and Catchings, Waddill, "The Automobile-Key to Our Prosperity," *World's Work*, December, 1926.
- Fox, R. M., *The Triumphant Machine* (A Study of Machine Civilization), Hogarth Press, 1928.
- Gibson, C. R., *Motor Car and Its Story*, Seeley Service, 1927.
- Hanna, Philip S., "Ingenious Tools Aid Motor Industry," *Wall St. Journal*, Nov. 22, 1926.

- International Association of Machinists, *Report of Grand Lodge Officers to Convention*, 1928. Page 7 gives A. F. of L. plan for organizing the automobile workers.
- Levin, Samuel M., "Ford Profit-Sharing, 1914-1920," *Personnel Journal*, August, 1927.
- , "The End of Ford Profit-Sharing," *Personnel Journal*, October, 1927.
- Keir, Malcolm, *Industries of America, Manufacturing*, Chapter X, "The Automobile Industry," Ronald Press, 1928.
- Kellogg, Paul U., "Henry Ford's Hired Men," *Survey*, Feb. 1, 1928.
- , "When Mass Production Stalls," *Survey*, Feb. 15, 1928.
- LaFever, Mortimer W., "Workers, Machinery and Production in the Automobile Industry," *Monthly Labor Review*, October, 1924.
- Lifschitz, Ben, "Automobile-Symbol of Modern Slavery." Series of nine articles on the automobile industry and its labor problems. *Daily Worker*, August 16, 17, 18, 20, 22, 23, 24, 25 and 27, 1928.
- Love, John, "Detroit a Sterile Field for Organized Labor," *Annalist*, Nov. 12, 1926.
- Lutz, R. R., *The Metal Trades*, Survey Committee of the Cleveland Foundation, 1916.
- Magazine of Wall Street*, "What is the Value of Ford's Stock?" March 12, 1927.
- National Safety Council, *Industrial Accident Experience of Members*, 1927.
- Niebuhr, Reinhold, "How Philanthropic is Henry Ford?", *Christian Century*, December 9, 1926.
- , "Ford's Five-Day Week Shrinks," *Christian Century*, June 9, 1927.
- Packard Motor Car Co., *Information for Packard Employees*, 1928.
- Parsons, Floyd W., *Everybody's Business*, Doubleday, Page & Co., 1923. Contains a chapter on the history and growth of the automobile industry.
- Pipp, E. G., *The Real Henry Ford*, 1922.
- , *Henry Ford, Both Sides of Him*, 1926.
- Pound, Arthur, *The Iron Man in Industry*, An Outline of the Social Significance of Automatic Machinery, Atlantic Monthly Press, 1922.
- Putz, Herbert Joseph, *The Automobile Business*, A Study of the History and Present Condition of Corporate Control, 1927. Submitted for M.A. degree. One copy in Columbia Univ. Library (typewritten).
- Reitell, Charles, "Machinery and Its Effect Upon the Workers in the Automotive Industry," *Annals*, November, 1924.
- Seltzer, Laurence H., *A Financial History of the American Automobile Industry*, A Study of the Ways in Which the Leading American Producers of Automobiles Have Met Their Capital Requirements, Houghton, Mifflin Co., 1928.
- Taylor, I. Paul, *Prosperity in Detroit*, 1920.
- United Automobile, Aircraft & Vehicle Workers of America, *Convention Proceedings*, 1920, 1926 and report of General Executive Secretary to 1928 Convention.
- U. S. Bureau of the Census, *Census of Manufactures* (Section en-

titled "Motor Vehicles, Including Bodies and Parts"), 1899 to 1927.

U. S. Dept. of Labor, *Wages and Hours in the Motor Vehicle Industry*, 1922.

—, *Wages and Hours of Labor in the Automobile Industry*, 1925.

U. S. Dept. of Labor, Children's Bureau, *Minors in Automobile and Metal-Manufacturing Industries in Michigan*, Bureau Publication No. 126, 1923.

Willys, John N., "Motorizing the World," Chapter XXVI in *A Century of Industrial Progress*, edited by Frederic William Wile.

2. PERIODICALS CONTAINING MATERIAL ON AUTOMOBILE COMPANIES AND AUTOMOBILE WORKERS

Auto Workers' News (Monthly), issued by the United Automobile, Aircraft and Vehicle Workers of America, Local 127, 55 Adelaide St., Detroit.

Daily Worker, 26 Union Square, New York. Occasional articles by worker correspondents.

Employee Magazines, issued by automobile companies: *Accelerator*, Studebaker Athletic Ass'n, *Budgetette*, Edward G. Budd Mfg. Co. and Budd Wheel Co., *Cadillac Craftsman*, Cadillac Motor Car Co., *I. M. A. News*, Industrial Mutual Ass'n of Flint (General Motors), *White Book*, White Motor Co.

Facts and Figures of the Automobile Industry. Published annually by the National Automobile Chamber of Commerce. The publications of this organization include also *Truck Facts for 1927*.

Federated Press, 166 W. Washington St., Chicago. Especially the daily economic service of Leland Olds.

Michigan Manufacturing and Financial Record, Detroit. (Weekly.)

Moody's *Industrials* (annual). Financial records of companies.

Poor's *Industrials* (annual). Financial records of companies.

Shop papers. The following papers, issued for workers of various companies, may be secured from Workers Party, 1967 Grand River Ave., Detroit: *Buick Worker*, *Dodge Worker*, *Fisher Body Worker*, *Ford Worker*, *Hudson Worker*, *Packard Worker*.

Standard Statistics Co., Inc. Financial reports on individual companies.

Trade journals. The best for general information about the industry from week to week is *Automobile Topics*. Another is *Motor Age*, published in Chicago and *Automotive Industries*, which usually contains a page on the activities of prominent men (managers and capitalists) of the industry. These journals are weeklies. The *Automotive Daily News*, published in New York, is the daily trade paper of the industry. The *Journal of the Society of Automotive Engineers* contains information on technical and managerial subjects.

Wall Street Journal, New York (Daily). Articles on profits of individual corporations.

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